AUTHOR INDEX

A

Abbott, L. D., 192
Abderhalden, E., 38, 39
Abe, Y., 53
Abels, J. C., 370
Abonyi, I., 570
Abraham, E. P., 563
Abrams, R., 8, 563
Achtermann, T., 60
Adair, G. S., 109, 110
Adair, M. E., 109, 110
Adams, M., 568
Adams, M. H., 12
Adamstone, F. B., 357, 384
Addis, T., 185, 186
Albanese, A. A., 84
Albaum, H. G., 10
Alber, H. K., 640, 641, 642, 645, 646, 648, 650
Albert, A., 449, 462, 460
Albrecht, W. A., 499, 500, 504, 505
Albright, F., 371
Alexander, A. E., 233
Alexander, T. R., 524
Alexander, W., 339
Alfin, R., 118
Alfredson, B. V., 256
Aline, E., 315
Allan, F. N., 245
Allan, M. B., 11
Allchorne, E., 373
Allemann, O., 371
Allen, J. G., 170, 174
Allerton, J., 85, 120
Alles, G. A., 293
Allison, F. E., 524
Alm, F., 551
Almquist, H. J., 51, 124, 193, 197, 255, 263
Alter, C. M., 654
Althausen, T. L., 136
Altschul, A. M., 8
Amies, C. R., 622
Ammon, R., 265
Anchel, M., 45, 46, 54
Ancher, M., 175
Andersen, A. A., 569
Andersen, D. H., 33
Anderson, E., 170, 282
Anderson, E. H., 574
Anderson, E. M., 136
Anderson, H. D., 129
Anderson, R. J., 233, 236, 237
Anderson, T. F., 593, 594, 595, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 608, 626, 627
Anderson, W. A. D., 442
Andersson, K. J., 83, 88, 111, 277
Andervont, H. B., 9
Andreen, J. H., 115
Andrewes, C. H., 625
Andrews, F. N., 338
Andrews, J. C., 36, 127, 128
Andrews, J. S., 259, 325, 326, 327, 376, 556
Andrews, K. C., 128
Andrus, W. D., 292
Annau, E., 171
Ansbacher, S., 337, 450, 555
Anslow, W. P., 124
Anson, M. L., 31, 52, 85, 120, 457, 478, 487, 488, 624
Antener, I., 54
Apel, A., 221
Appenzeller, R., 16
Archer, W. F., 371
Ardenne, M. v., 589, 590, 591, 592, 593, 594, 595, 596, 597, 599, 607, 608, 626, 627
Ardis, A. E., 384
Ark, P. A., 562
Armstrong, S. H., 97, 100, 101
Armstrong, W., 252, 403, 405
Armstrong, W. D., 251, 264
Arndt, F., 209
Arnold, F. A., Jr., 264
Arnold, P. T. D., 366
Arnon, D. I., 502, 503, 505, 506, 520, 525
Aronoff, S., 365
Arrhenius, S., 448
Artom, C., 169, 193, 244
Arx, E. v., 62
Asenjo, C. F., 30, 37
Ashburn, L. L., 168, 243, 313, 322, 335
Asikari, H., 47
Aso, K., 224
Astbury, W. T., 95, 97, 108, 603, 621
Aston, J. G., 233
Astrup, T., 97, 98, 385
Astwood, E. B., 12
Atkin, L., 323, 553
Atkinson, W. B., 311, 433
Aub, J. C., 251, 288
Aubel, C. E., 252
Audureau, A., 574
Aufdemgarten, H., 482, 484
Austin, F. L., 378
Austin, J. H., 291
Austrian, R., 316, 328, 336, 450, 562
Axelrod, A. E., 13, 16, 144, 165, 170, 314, 326, 329

B

Baatz, I., 475
Babcock, L. C., 311, 329
Bach, E., 384
Bach, S. J., 9, 195, 196, 440
Bacharach, A. L., 356, 373, 384, 651
Bachman, C., 111, 285, 286
Bachman, C. H., 589, 593
Bachmann, W. E., 210, 293, 294
Baer, E., 3, 4
Baethke, D., 377
Bagchi, P. N., 234
Bahler, G. P., 334
Bailey, B., 18, 122
Bailey, E. A., Jr., 327
Bailey, E. M., 371
Bailey, K., 87, 88
Bailly, M. C., 236
Baird, F. D., 371
Baker, A. B., 370
Baker, A. K., 442
Baker, B. R., 384, 385
Baker, E. G. S., 554, 574
Baker, J. W., 565
Baker, L. A., 454
Baker, R. F., 596
Baker, Z., 455, 456, 457, 458
Balcazar, M. R., 30, 37
Baldinger, L. H., 459
Baldwin, D. M., 631

Baldwin, E., 223
Baldwin, I. L., 553, 557
Bale, W. F., 258
Balezin, S. A., 221
Balfour, W. M., 258
Balint, P., 84
Ball, E. G., 18
Ball, H. A., 146, 166
Ball, Z. B., 337
Ballard, L. A. T., 475
Balls, A. K., 30, 37, 120, 239, 563
Baly, E. C. C., 489
Bamann, E., 39
Bambach, K., 649
Bamberger, E., 464
Bamman, F., 285
Banca, M. C., 589
Banerji, G. G., 165, 322
Bang, I. Z., 529
Banner, R. E., 33, 278
Barber, H. H., 649
Barborka, C. J., 143
Barbour, P. H., Jr., 466, 645
Bard, D., 239
Bard, J. W., 239
Bard, P., 166
Barker, D. K., 371
Barker, H. A., 19, 524, 529, 532, 535, 552, 572, 573, 574
Barker, S. B., 146
Barnes, L. H., 563
Barnes, L. L., 263, 266
Barnes, M. R., 607
Barnes, R. H., 157, 158, 163, 165, 172, 337
Barnett, J. W., 316, 328, 331, 454, 561
Barr, T., 57
Barrentine, M., 518, 519
Barron, E. S. G., 14, 151, 322, 559
Barry, V. C., 218, 223
Bartels, R., 564
Barthen, C. L., 354
Barton-Wright, E. C., 325
Bartow, E., 214
Barusch, M. R., 642
Bashour, 51
Basinaki, D. H., 159
Basset, M. A., 274
Batchelder, E. L., 413
Bates, F. J., 206
Bates, R. W., 282, 283
Bath, J. W., 277
Batkan, G., 11
Batt, W. G., 641, 650
Bauernfeind, J. C., 321, 328, 556
Baum, H. M., 326
Baum, W. S., 367, 368
Bauman, E., 406
Baumann, C. A., 39, 169, 197, 198, 199, 242, 310, 311, 368, 369, 385
Baumberger, J. P., 21, 574
Baumgarten, W., 226
Bavetta, L. A., 158
Bawden, F. C., 618, 627, 628
Baxter, J. G., 353, 357, 359, 363, 373, 375, 381
Baylor, E. R., 607
Bazilevich, I. V., 266
Beach, E. F., 84, 116, 124
Beadle, B. W., 365
Beadle, G. W., 320, 331, 337
Bean, J. W., 293
Bean, W. B., 338
Bear, R. S., 604
Beard, D., 615, 616, 617, 618, 624, 633
Beard, D. W., 629, 633
Beard, H. H., 318, 322
Beard, J. W., 111, 615, 616, 617, 618, 624, 629
Bebb, K. C., 142
Bechtold, E., 432
Beck, A. B., 260, 261
Beck, A. C., 386
Beck, J. V., 535, 573
Beck, L. V., 136
Beebe, J. M., 562
Beecher, H. K., 21, 449
Beeson, K. C., 264, 518, 519
Beeson, W. M., 252
Behrens, O. K., 119
Beiglböck, W., 317
Beijerinck, M. W., 569
Belfer, S., 18, 122
Belitzer, V., 1
Bell, D. J., 206, 223
Bell, F. O., 97
Bell, G. H., 431
Bell, M., 417
Bell, P. H., 449, 452, 453, 562
Bellon, M. T., 338
Benaglia, A. E., 146
Bender, J. F., 589
Bender, R. C., 311, 314, 326, 329, 330, 341
Ben Dor, B., 256
Benedetti-Pichler, A. A., 639, 649, 651, 653
Bennet M. A., 199, 124
Bennett, A. H., 338
Bennetts, H. W., 260, 261
Benotti, J., 238, 240
Benoy, M. P., 214
Benz, F., 287
Beraud, P., 574
Berg, C. P., 139, 140, 172, 192, 193
Berg, F. F., 354
Berg, R. L., 14, 144
Bergeim, O., 324
Berger, E., 218, 221
Berger, J., 39, 41
Berger, L., 214
Bergman, M. J., 17
Bergman, S., 559
Bergmann, M., 29, 30, 31, 32, 33, 34, 36, 37, 39, 41, 81, 84
Bergmann, W., 57
Bergstermann, H., 463
Bergström, S., 62, 175
Berisso, B., 650
Berk, J. E., 163
Berkelhamer, L. H., 645
Berkman, S., 16, 329
Berman, A. L., 50, 54
Bernal, J. D., 96, 97, 108, 628, 645
Bernfeld, P., 138
Bernhard, K., 171
Bernhauer, K., 537
Bernheim, F., 12, 20, 88, 170, 176, 198, 564, 633
Bernheim, M. L. C., 20, 633
Bernstein, S., 57
Berridge, N. J., 37
Berry, G. P., 563
Berry, H., 460
Bersin, T., 237
Bertrand, D., 525
Bessey, O. A., 143, 322, 411
Best, C. H., 200, 310
Bethke, R. M., 310, 311, 326
Bettenger, I., 386
Beveridge, J. M. R., 116
Bianchi, E., 294
Bibby, B. G., 563
Bielig, H. J., 456, 457
Bielschowsky, F., 450, 451, 453, 454
Biely, J., 325

Bierbaum, O., 170
Billings, F. L., 325
Bills, C. E., 371
Bina, A. F., 327
Bing, F. C., 259
Binkley, F., 121, 124
Binnington, D. S., 376
Bird, F. H., 334
Bird, O. D., 332, 385
Birkinshaw, J. H., 563
Birkofer, L., 206
Birnbaum, N., 653
Bischoff, F., 286, 287, 288
Biskind, G. R., 295, 317
Biskind, M. S., 295, 317
Bittenbender, W. A., 459
Björkman, S. E., 436
Blacet, F. E., 654
Black, A., 257, 311, 314, 360
Black, D. A. K., 258
Black, S., 386
Blackburn, S., 87
Blade, E., 652
Blaedel, W. J., 654
Blagden, J. W., 224
Blair, W. M., 515
Blanchard, E. L., 367
Blanchard, K. C., 450, 453
Blanchard, M. H., 276, 277
Blank, L. M., 510
Blaschko, H., 13, 123, 192, 193
Blatherwick, N. R., 145
Blewett, M., 309, 335
Blick, F. F., 463, 464
Bliss, E. A., 450
Blix, G., 88, 89, 101, 102
Bloch, E., 52, 58
Bloch, H., 561
Bloch, H. I., 146
Bloch, K., 61, 171, 187, 188, 318
Block, M., 166, 167
Block, P., Jr., 274
Block, R. J., 122, 127, 426
Block, W. D., 128
Blood, F. R., 121, 122
Bloomberg, E., 371
Bloor, W. R., 169, 239, 243
Blumberg, H., 126, 168
Blunden, H., 141
Bobbitt, B. G., 150, 173
Bock, F., 57
Bodansky, O., 406
Boelter, M. D. D., 254
Boer, J., 160
Boersch, H., 610
Boezaardt, A. G. J., 213
Bogdanovich, R. I., 142
Bohonos, N., 555, 557
Bohstedt, G., 251
Bolcato, V., 569
Boldyreva, N. V., 323
Bolin, D. W., 252
Bollman, J. L., 143, 149, 167, 244
Bömeke, H., 564
Boncoddo, N., 238
Bonhoeffer, K. F., 222
Bonner, J., 309, 326
Bonnet, R., 183
Bonot, A., 185
Bonsnes, R. W., 85, 119, 278, 280, 281, 282, 283
Booher, L. E., 369, 405
Booth, A. N., 312
Booth, R. A., 163
Booth, R. G., 251, 323
Boothby, W. M., 183, 185, 187
Borchers, R., 85, 139, 140, 172, 193
Borden, D. G., 569
Bordet, J., 97
Borek, E., 123
Borg, A. F., 455, 456
Bori, D. V., 338
Borisoglebskiĭ, S. D., 224
Borkowsky, F., 464
Bornstein, B. T., 365
Borries, B. v., 588, 589, 591, 594, 596, 599, 608, 626, 627
Borsook, H., 183, 184, 187, 188, 193, 195, 196, 199
Bortels, H., 530, 537, 546
Boruff, C. S., 556
Boswell, A. M., 86
Boswell, J. G., 568
Bot, G. M., 239
Bottomley, A. C., 281
Boucher, R. V., 325
Boudan, F., 53
Bourdillon, J., 625, 626
Boutwell, R. K., 160
Bovarnick, M., 573
Bowie, D. J., 245
Bowie, M. A., 21
Bowman, D. E., 86, 287, 291
Bowman, K. M., 322
Bowman, N. L., 206
Bowstead, J. E., 262
Boyd, E. M., 166, 239, 291
Boyd, G. E., 648
Boyd, H. M., 325, 326, 327, 556
Boyd, M. J., 240
Boyer, P. D., 263, 274, 367
Boyland, E., 563
Bradbury, F. R., 451, 453, 462, 562, 563
Bradley, H. C., 18, 122
Bradway, E. M., 381
Braker, W., 464
Branch, G. E. K., 452
Brand, E., 34, 83, 84, 116, 119, 122, 127, 274
Brand, F. C., 171, 241
Brandstatter, M., 647
Brandt, K., 19
Bratton, A. C., 453
Braude, R., 360
Braun, C. E., 206
Braun, P., 51
Braun, W. A., 160, 165
Braun-Menendez, E., 292, 293
Brauns, D. H., 206
Brauns, F. E., 206
Bray, M. M., 252
Bredereck, H., 218
Breitburg, A. M., 141
Breiter, H., 252, 403, 405
Brenchley, W. E., 525
Brenner, S., 369, 406
Breslove, B. B., 555
Breslow, D. S., 205, 220
Bretey, J., 338
Bretscher, E., 361
Bretschneider, H., 59
Brewer, C. R., 571, 574
Brewer, J. L., 244
Brewster, E. L., 653, 654
Brewster, J. F., 206
Bricker, C. E., 649
Briggs, A. P., 334
Briggs, D. R., 648
Briggs, G. E., 480, 489
Briggs, G. M., Jr., 124, 192, 315, 328, 333, 334, 337
Brill, H. C., 463
Brinkhous, K. M., 98, 385
Brinkley, F., 190, 200
Brobeck, J. R., 166
Brode, W. R., 161, 175, 233, 466
Brodsky, R. H., 372

Bronfenbrenner, J., 619
Brookes, M. C. H., 406
Brooks, C. M., 166
Brooks, R. E., 128
Broome, F. K., 54
Brophy, D., 323
Broquist, H. P., 553, 557
Brown, B. H., 122, 123
Brown, E. B., 326, 327
Brown, E. F., 368
Brown, E. V., 225
Brown, F. W., 141
Brown, G. B., 85, 118, 119, 124, 188, 190, 191, 193, 278
Brown, G. H., 653, 654
Brown, H. V., 86
Brown, J. B., 161, 175, 233
Brown, R. L., 210, 219
Brown, W. L., 83, 120
Browne, C. A., 206
Browne, J. S. L., 296
Brownell, K. A., 282
Browning, C. H., 460
Broyer, T. C., 493, 499, 500, 501, 524, 574
Bruche, E., 588, 593
Brückner, J., 240
Brugel, H. G., 174
Bruger, M., 168
Brunschwig, A., 159, 187
Brunsen, A. M., 365
Bryan, W. R., 616, 624, 629
Bryant, G. W., 253
Bryant, J. T., 646, 650
Buchanan, J. M., 5, 138, 139, 144, 533, 534, 543, 547
Buck, J. S., 384
Budnitskaya, E. V., 221
Bueding, E., 142, 143, 144, 409
Bueschsel, H. Z., 16
Buhs, R. P., 333, 375, 385
Buka, R., 21
Bukatsch, F., 476
Bullard, E. F., 221
Bulliard, H., 323
Bunzell, H. H., 324, 553, 654
Burgess, K. A., 233
Burk, D., 5, 318, 524
Burkholder, P. R., 312, 333, 335, 366, 557
Burki, E., 128
Burnett, W. A., 185
Burns, R. G., 475
Burr, G., 358
Burr, G. O., 157, 158, 163, 175, 176, 235, 373, 474
Burr, M., 358
Burrill, M. W., 295, 296
Burris, R. H., 574
Burrows, W., 556
Burtner, R. R., 464, 465
Burton, E. F., 589, 597
Burton, I. F., 441
Busch, H., 587
Bushnell, L. D., 369, 564
Büsing, K. H., 556
Buskirk, H. H., 328, 556
Butkewitsch, V. S., 538, 565
Butler, J. A. V., 28, 34
Butler, R. E., 556
Butts, J. F., 192
Butts, J. S., 139, 141, 150
Byrnes, W., 294
Bywaters, E. G. L., 432

C

Cadden, J. F., 13
Caesar, G., 39
Caglioti, V., 52
Cahill, G. F., 122, 127
Cahill, W. M, 193
Cahn, T., 185
Cain, C. K., 286
Cajori, F. A., 18
Calbick, C. J., 588
Calder, R. M., 317
Caley, E. E., 653
Callan, T. P., 117
Callison, E. C., 369, 405
Calvin, M., 452, 645
Cameron, A. T., 188
Campbell, D. H., 87
Campbell, J., 284
Campbell, N. R., 294
Cannan, R. K., 85, 98, 107, 108, 109, 110
Cannon, G. W., 115
Cantarow, A., 283, 295, 439
Capella de Fernandez, M. Del C., 30, 37
Carlson, G. H., 384, 385
Carlson, W. E., 324
Carmichael, J., 188
Carne, H. O., 165, 172, 185
Carpenter, P. M., 339
Carpenter, T. M., 145
Carroll, W. R., 365, 368
Carruthers, R. T., 370
Carson, S. F., 474, 532, 537, 545
Carsons, T., Jr., 370
Carter, E. B., 354
Carter, H. E., 119, 175, 237
Carter, L. W., 127
Carter, P. W., 56
Cartland, G. F., 286, 287
Case, F. H., 464
Caskey, C. D., 263
Cason, J., 233
Cassidy, H. G., 651
Castañeda, M., 30, 37
Castor, J. G. B., 574
Castro, E. R., 463, 464
Castrodate, D., 170
Cataldi, M. S., 563
Catch, J. R., 563
Catchpole, H. R., 280
Cate, H. D., 407
Cathcart, E. P., 185
Caveness, H. L., 406
Cavett, J. W., 274
Cawley, J. D., 363, 368
Cefola, M., 649
Cera, B., 338
Cerecedo, L. R., 163, 333
Chadwick, C. S., 282
Chaffee, E., 563
Chaikoff, I. L., 1, 167, 168, 170, 171, 176, 197, 198, 243, 244, 245, 275, 282
Chain, E., 563
Chaix, P., 122
Chakravorty, P. N., 56
Chalmers, J. N. M., 436
Chambers, L. A., 597, 598, 599, 600
Chambers, R., 639
Chambers, W. H., 145, 185
Chamot, E. M., 645, 646, 647
Chance, M. R. A., 384
Chancone, F. M., 338
Chandler, F. G., 437
Chandler, J. P., 119, 125, 188, 190, 191, 193, 197, 198, 242
Channon, H. J., 169, 200
Chao, H.-C., 403
Chapin, J. M., 386
Chapman, A., 275
Chapman, H. D., 510, 514
Chapman, R. A., 335
Chargaff, E., 171, 175, 235, 236, 238, 239, 240

Chase, F. E., 556
Chattaway, F. W., 294
Cheldelin, V. H., 306, 309, 315, 316, 320, 321, 324, 325, 326, 327, 328, 334, 335, 337, 553, 556
Chen, K. K., 465
Chen, S. C., 252
Chesley, L. C., 118
Cheu, S.-H., 403
Chibnall, A. C., 81, 107, 108, 276
Chick, H., 354, 433
Chinard, F. P., 116
Chinn, H., 310, 311, 369, 441
Chittick, R. A., 339
Cholnoky, L., 54, 651
Chornock, C., 263
Chou, C., 84
Chow, B. F., 83, 284, 285, 287, 288, 290, 291
Christensen, B. E., 118
Christensen, H. N., 82
Christensen, K., 243
Christian, W., 5, 11, 19
Christiansen, W. G., 463, 464
Christman, A. A., 251
Christopher, G. L., 120
Chrzaszsz, T., 537, 538
Chu, H.-I., 403
Chytrek, E., 265
Ciereszko, L. S., 282
Claesson, S. T., 235
Clark, A. B., 538
Clark, A. J., 448, 449
Clark, D. E., 159, 187
Clark, G. C., 224
Clark, G. L., 607, 645
Clark, J. A., 206
Clark, W. G., 135, 136, 453, 562
Clarke, D. H., 311
Clarke, F. H., 106
Clarke, J. T., 233
Clarke, M. F., 329, 338
Clarke, R. G., 653
Claude, A., 239, 615
Clausen, S. W., 367, 368
Cleckley, H. M., 418
Clegg, J., 430
Clifton, C. E., 573
Climenko, D. R., 335
Clowes, G. H. A., 15, 16, 454
Clutterbuck, P. W., 538
Cobler, J. G., 376
Coburn, A. F., 563
Cohen, A. L., 552, 567, 574
Cohen, J. A., 289
Cohen, J. B., 460
Cohen, P. P., 18, 174
Cohen, S., 555
Cohen, S. G., 218
Cohen, S. L., 239
Cohen, S. S., 97, 618, 623, 632
Cohn, E. J., 89, 97, 100, 101, 276, 277, 279, 282, 283
Cohn, E. T., 251
Cohn, G., 653
Cohn, M., 125, 188, 198, 242
Cohn, W. F., 251
Colburn, R. F., 386
Cole, H. H., 286, 288
Coleman, G. H., 219
Coles, H. W., 464
Collander, R., 496, 497, 501, 515, 516
Collier, H. B., 33
Collings, W. D., 292
Collip, J. B., 283
Colowick, S. P., 3, 137, 567
Colp, R., 54
Comar, C. L., 239
Common, R. H., 253
Conant, J. B., 144, 574
Conaway, R. F., 206
Conley, C. L., 255
Conn, E. S., 145
Conn, J. B., 35, 82
Conn, J. W., 145
Conrady, A. E., 651
Conway, E. J., 575, 653
Cook, A. H., 563
Cook, E. S., 464, 465
Cook, E. W., 225
Cook, J. W., 47
Cool, R. D., 648
Coombs, G. F., 263
Coons, A. H., 274, 275
Cooper, E., 564
Cooper, G. R., 88, 94, 101, 616, 624, 625
Copenhaver, W. M., 171
Copley, D. M., 354
Copp, D. H., 262
Corbellini, A., 225
Corbet, A. S., 566
Corbet, R. E., 353
Corbin, H., 187
Cordier, P., 572
Cori, C. F., 3, 136, 138, 148, 151, 567
Cori, G. T., 136, 138, 148
Corkill, A. B., 128, 278
Cornatzer, W. E., 36
Cornbleet, T., 369, 434
Corner, M., 651
Correll, J. T., 371
Cortese, F., 51
Coryell, C. D., 86, 426
Couch, J. R., 315
Coulson, R. A., 440
Coulthard, E. C., 563
Cowan, D. W., 370
Coward, K. H., 317, 323, 326, 358
Cowgill, G. R., 433
Cowie, D. B., 486
Cowles, E. J., 653
Cox, G., 252, 397, 403, 404
Cox, R. P., 164, 358, 368
Cox, W. M., Jr., 189
Cox, W. W., 11, 428
Coy, K. H., 360
Cragoe, C. S., 206
Craig, F. N., 21
Craig, L. C., 640
Craigie, J., 621, 629
Cramer, R. D., 5, 144, 574
Crandall, L. A., Jr., 174
Cravens, W. W., 334, 337
Credner, K., 573
Criegee, R., 225
Cromwell, H. W., 328, 329, 556
Crossley, M. L., 120
Crowe, M. O'L., 651
Crowfoot, D., 96, 108, 645
Crowley, L. W., 367
Croxatto, H., 36, 38, 293
Croxatto, R., 36, 38, 293
Cunningham, R. W., 128
Curtis, G. M., 274
Curz, W. O., 258
Cuthbertson, D. P., 188
Cuthbertson, E. M., 257, 258
Cutler, C. H., 147, 148
Cutting, M., 278
Cutuly, E., 282
Cuyler, W. K., 296
Czernucki-Hrebeljanowitsch, M., 456
Czurda, V., 566

D

Daft, F. S., 126, 168, 200, 243, 310, 313, 322, 335
Dahl, O., 88
Dakin, H. D., 139
Dalby, G., 459
Dale, H. H., 563
Dale, W. M., 16, 37
D'Alessandro, A. J., 385
Dalmer, O., 225
Dam, H., 167, 377, 384, 386
Damodaran, M., 82
Danckwortt, P. W., 265
Daniel, E. P., 162, 333
Daniels, A. L., 254
Daniels, F., 476
Daniels, T. C., 448, 458, 459
Danielson, J. S., 238
Danmanville, P., 183
Dann, O., 456, 457
Dann, W. J., 311, 315, 327, 406, 407
Dansi, A., 566
Darby, H. H., 30, 85
Darby, W. J., 193
Darling, R. C., 10, 427
Darling, S., 97, 98, 385
da Silva Pereira, A., 651
Dauphinee, J. A., 194
Davidson, C. S., 385
Davidson, G. F., 214, 215
Davidson, J. N., 12
Davies, A. W., 356
Davies, R., 20, 571, 572
Davies, T. H., 384
Davis, A., 142, 148
Davis, B. D., 97, 100, 101
Davis, D. S., 293
Davis, J. G., 37
Davis, W. W., 292
Davison, R. A., 274
Davisson, C. J., 588
Dawson, C. R., 12
Dawson, M. H., 563
Day, D., 333
Day, H. G., 255, 265
Day, J. N. E., 219
Dean, H. T., 264
Dean, R. B., 653
Deane, H. W., 148
de Bodo, R. C., 146
Degering, E. F., 206, 459
Dehn, W. M., 650
DeJong, R. N., 377
de Jong, S., 323, 324, 338
De Lamater, A., 168
Delbruck, M., 630
Delépine, M., 222
Delikat, E., 339
Della Vida, B. L., 339
DeLor, J., 385
Delor, R. A., 328, 556
Delory, G. E., 432
Delwiche, C. C., 499, 500, 501
Denis, W., 183
Denker, P. G., 377
Deotto, R., 571
Deppe, M., 370
Dereniuk, S. N., 33, 278
Dernovskaya-Zelentsova, G. L., 338
De Robertis, E., 274
Derrien, E., 433
Desgrez, P., 117, 123
de Süto-Nagy, G. J., 98
Deuel, H. J., Jr., 136, 140, 141, 142, 147, 148, 150, 151, 158, 164, 173, 183, 185, 187, 366, 441
Deutsch, H. F., 324
De Vaughn, N. M., 334
DeVault, D. C., 486
Devlin, H. B., 376, 380
Dewey, B. T., 650
Dewey, V. C., 309
DeWitt, J. B., 371
DeWitt, T. W., 476
Dexter, L., 292
Dexter, S. O., 18
Dible, J. H., 432
Di Ció, A. V., 338
Dicken, D. M., 310, 316, 333, 334, 336, 555
Dieckmann, H., 21
Diehl, H. S., 370
Dietzel, E., 378
Dillon, R. T., 84
Dillon, T., 218
Dills, W. L., 12, 111
Dimick, M. K., 333
Dimond, N. S., 316, 336, 561
Dippold, H., 211, 212
Dirscherl, W., 59, 570
Dittmer, K., 555
Dixon, M., 9, 440
Dobringer, K., 296
Dodd, K., 339
Dodds, E. C., 563
Doisy, E. A., 286, 293
Dolan, M., 175, 239
Dolby, D. E., 234, 630
Döllken, H., 333
Domack, G., 455
Donau, J., 652
Donker, H. J., 534
Donleavy, J. J., 463
Donovan, P. B., 245
Dorfman, A., 16, 295, 296, 329, 555, 559, 563
Dorrestein, R., 478
Doster-Virtue, M. E., 51, 123, 157, 193
Doubilet, H., 54
Doudoroff, M., 552, 556, 567, 569, 574
Douglas, C. G., 427
Dounce, A. L., 9, 440
Dow, R. B., 88
Downer, A. W. E., 338
Doyle, L. P., 265
Drabkin, D. L., 10, 429, 442
Dragstedt, L. R., 170, 174, 245
Drake, B. B., 119
Drake, M. E., 464
Driest, E., 605
Drill, V. A., 149, 292, 317, 330
Driver, R. L., 136
Drury, D. R., 135, 148, 165
Dublyanskaya, N. F., 56
Dubnoff, J. W., 84, 187, 188, 193, 196, 199
DuBois, A. S., 458, 459
DuBois, K. P., 10, 128, 129, 440
Dubos, R. J., 82, 239, 450, 455, 456, 563, 623
Duchenne, J. O., 224
Duckworth, J., 253, 254
Duff, R. B., 218
Duffie, D. H., 431
Dufrenoy, J., 524
Duggar, B. M., 476
Dunbar, P., 185, 189
Duncan, C. W., 254, 255
Dunker, C. F., 338
Dunn, M. S., 86
Du Puis, R. N., 224
Durand-Reynals, F., 239
Dusk, H., 554
Duszynska, J., 358
Dutcher, J. D., 62
Dutcher, R. A., 263
Du Toit, P. J., 257
Dutton, H. J., 475, 476
Dwight, J., 403
Dye, M., 252
Dyer, H. M., 251, 289, 323
Dyke, S. C., 339

Dylevskaya, V. G., 347
Dyme, H. C., 164, 165
Dyniewicz, H. A., 370
Dyrerre, H., 254

E

Eagles, G. H., 622
Eakin, E. A., 555
Eakin, R. E., 332, 334, 555, 556
Earle, A., 556
Earle, D. P., Jr., 126, 127, 168, 169
Eaton, F. M., 514, 515, 516, 519
Ebbs, J. H., 417
Eberlein, E., 482, 483, 488, 489
Eberlin, S. L., 370
Ebert, R. V., 653
Ecker, E. E., 89
Eckstein, H. C., 126, 169, 200
Edelblute, N., 397
Eden, A., 261
Eder, H., 18, 122
Eder, R., 643
Edgar, G., 261
Edgerton, L. J., 505
Edisbury, J. R., 355, 362, 359
Edlbacher, S., 139, 193
Edlund, Y., 322
Edman, P. V., 175
Edmonds, S. M., 653
Edsall, J. T., 101, 108
Edwards, A. E., 646
Edwards, J. E., 122
Edwards, R. R., 82
Egaña, E., 323
Eggers, H., 21
Eggleston, L. V., 15, 532, 534, 537, 539, 540, 541, 544, 546, 557, 558, 565
Eggleton, M. G., 432
Eggleton, W. G. E., 265
Ehret, W. F., 652
Eich, H., 218, 219
Eichhoff, H. J., 474, 477
Eisenbrand, J., 265
Eistert, B., 209
Elderfield, R. C., 223
Elford, W. J., 625
Elgart, S., 142, 174
Elghammer, H. W., 128
Ellinger, P., 434, 440
Elliott, A. M., 309
Elliott, K. A. C., 145
Ellis, J. W., 277
Elman, R., 86
Elsden, S. R., 530, 534
Elsom, K. O., 319, 331
Elsworth, F. F., 86, 115
Elvehjem, C. A., 13, 16, 124, 144, 160, 164, 165, 170, 192, 251, 259, 260, 262, 265, 312, 313, 314, 315, 326, 327, 328, 329, 330, 332, 333, 334, 335, 336, 337, 340, 386, 555
Elvove, E., 264
Embree, N. D., 362, 363, 364, 365
Emerson, G. A., 373, 378, 465
Emerson, O. H., 373, 378, 380
Emerson, R., 473, 475, 477, 478, 479, 484
Emich, F., 650
Emmens, C. W., 295
Emmett, A. D., 332, 385
Emte, W., 378
Endo, S., 536
Engel, R. W., 163, 169, 170, 240, 310
Engelhardt, H., 458
Engelhardt, W. v., 646
English, J., Jr., 463
Ennor, A. H., 173, 278
Entenman, C., 167, 168, 170, 244, 245
Eppright, M. A., 324, 328, 337, 553, 556
Epps, H. M. R., 573
Eppstein, S. H., 164, 380
Erb, R. E., 338
Erickson, J. O., 88, 94
Eriksen, B., 365, 369
Erikson, D., 564
Eriksson-Quensel, I. B., 27, 28
Erlenmeyer, H., 561, 651
Esselen, W. B., Jr., 338
Euler, B. v., 160
Euler, H. v., 13, 160, 322
Euw, J. v., 294
Evans, C. A., 324
Evans, E. A., Jr., 15, 194, 529, 539, 540, 541, 542, 544
Evans, H., 522
Evans, H. M., 125, 146, 280, 281, 282, 283, 284, 285, 286, 287, 288, 308, 337, 373, 378
Evans, J. S., 286, 287
Evans, S. T., 260, 261
Evans, W. C., 565
Evans, W. L., 214, 223
Everett, M. R., 238
Ewing, P. L., 434
Exner, F. M., 600

F

Falk, K. G., 406
Fankuchen, I., 96, 97, 628
Farber, S., 371
Farkas, A., 6
Farkas, L., 6
Farnham, A. G., 219
Farr, L. E., 167
Fasciolo, J. C., 292, 293
Faust, E. C., 36
Fazekas, J. F., 142, 143
Featherstone, R. M., 139, 192
Fedotova, M. V., 465
Feeney, R. E., 556
Felcher, G., 599
Feldman, J., 254
Fellers, C. R., 338
Fellows, E. J., 128, 464
Fels, E., 295
Felt, C., 259
Fenaroli, A., 237
Fenn, A. H., 309, 317, 337
Fenn, W. O., 255
Fenske, M. R., 564
Fenton, P. E., 135
Ferguson, J. H., 34
Ferguson, L. K., 54
Fernholz, E., 45, 55, 58, 60, 370
Ferrar, G. E., Jr., 401
Ferrebee, J. W., 377
Ferry, J. D., 276, 277
Fetcher, E. S., 653
Fevold, H. L., 279, 282, 283, 285, 287
Feyrter, F., 240
Fickas, D., 189
Fidler, R. S., 141
Field, H., Jr., 325, 409
Field, J. B., 385
Fierke, S. S., 190
Fieser, L. F., 296
Figge, F. H. J., 311, 433, 440
Fikentscher, R., 434
Fildes, P., 450, 454, 458, 530
Fincke, M. L., 339, 405, 413
Findlay, G. M., 454, 460, 563, 631
Finkelstein, H., 615, 616, 617, 618

Firminger, H. I., 653
Fischer, E., 214, 223
Fischer, F. G., 566
Fischer, H., 10, 432, 442
Fischer, H. O. L., 205, 237
Fischer, W. H., 59, 60, 294
Fish, W. R., 295, 296
Fisher, A. M., 277, 278
Fisher, C. V., 316, 336, 456, 561, 562
Fisher, H., 325
Fisher, J. H., 215
Fisher, K. C., 462
Fishler, M. C., 171
Fishman, M., 478
Fishman, W. H., 193
Fitch, J. B., 160, 167
Flechsig, H., 215
Fleischer, G., 563
Fleming, A., 563
Flock, E. V., 143, 167, 244
Flosdorf, E. W., 40
Floyd, N., 123
Flume, E., 51
Folch, J., 174, 175, 235, 236, 243
Folin, O., 183, 184
Follansbee, R., 21
Folley, S. J., 281
Follis, R. H., Jr., 251, 255, 256, 257, 265, 330, 333
Foltz, V. D., 458, 459
Fontain, F. C., 160, 167
Fontaine, F. E., 572
Fontana, B. J., 645
Foot, A. S., 360
Forbes, E. B., 257
Forbes, J. C., 310, 328
Forbes, W. H., 407
Ford, Z. W., Jr., 311, 322
Fordyce, C., 206
Forth, R., 327
Fosbinder, R. J., 354
Fosdick, L. S., 463
Foster, E. G., 368
Foster, F. J., 653
Foster, J. W., 474, 485, 489, 532, 537, 545, 563
Foster, W. C., 264, 273, 274
Fourie, P. J., 433
Fourneau, E., 466
Fouts, P. J., 333, 440
Fox, C. L., Jr., 450, 452, 453, 454, 561
Fox, D. L., 442
Foy, J. R., 163, 333
Foy, M., 222
Fraenkel, G., 309, 335
Fraenkel-Conrat, H., 111, 115, 125, 146, 280, 281, 282, 283, 284, 285, 286, 287, 288, 296
Fraenkel-Conrat, J., 282, 284, 288
Frampton, V. L., 599, 600
Francis, A. E., 460
Francis, T., Jr., 618, 619, 633
Franck, J., 474, 475, 479, 480, 483, 484, 485, 486, 489, 545
Frank, F., 605
Frank, H., 339
Frankel, M., 51
Franklin, M. C., 252
Franks, W. R., 88
Frankston, J. E., 84
Frantz, A. M., 377
Franz, E., 605
Fraps, G. S., 325, 365, 367, 556
Fraser, A. M., 291
Fratzke, W. E., 506
Frazer, A. C., 157
Fredenhagen, H., 222
Fredericksen, J. M., 463
Frediani, H. A., 646
Free, A. H., 259, 260
Freeman, G. G., 567
Freeman, J. A., 244
Freeman, L. W., 158
Freiberg, I. K., 284
French, C. E., 163, 311, 314
French, C. S., 474, 478, 480, 483, 484, 485, 487, 488, 489
French, D., 568
French, K., 375
Frenkel, A. W., 487
Freud, J., 283
Freudenberg, E., 32, 128
Freudenberg, K., 218, 219, 277, 278
Freudenberg, W., 224
Frey, C. N., 323, 553
Freyberg, R. H., 128
Friedemann, T. E., 143, 174
Frieden, E. H., 86
Friedenwald, J. S., 18, 21
Friedman, L., 378
Friedrich-Freksa, H., 592, 599
Fries, B. A., 1, 171, 243
Fritz, J. C., 371
Fritzsche, H., 56, 373
Fromageot, C., 122
Frost, D. V., 262, 326, 333, 340
Fruhbrodt, E., 597
Frush, H. L., 206, 219
Fruton, J. S., 17, 29, 30, 31, 32, 33, 34, 36, 37, 41
Fry, E. G., 174
Fry, E. M., 221
Fuchs, H. G., 62
Fuchs, W. M., 205
Fugitt, C. H., 29
Fukui, T., 47, 49, 50
Fuld, M., 81
Fuller, W. H., 568
Fulmer, E. I., 572
Fulton, C. C., 651
Funnell, E. H., 401
Furman, N. H., 649, 653
Furrita, W. J., 265

G

Gabrielsen, E. K., 475
Gaffron, H., 5, 6, 7, 19, 473, 474, 476, 480, 483, 484, 485, 486, 489, 545, 564
Gailey, F. B., 39
Gaind, K. N., 465
Gajevskaja, C. R., 538
Gakhokidze, A. M., 223
Gale, E. F., 565, 572, 573
Gallagher, T. F., 83, 291
Gallup, W. D., 263
Gammon, G. D., 256
Garand, N. D., 291
Garcia, C. R., 650
Gard, S., 618
Gardner, A. D., 563
Gardner, T. S., 224
Gardner, W. U., 282
Gardner-Foulke, D., 650
Garnjobst, L., 554
Garrod, L. P., 460
Gauch, H. G., 515, 516, 517
Gaunt, R., 460
Gaunt, W. E., 252
Gavarron, F. F., 30, 37
Gavin, G., 170, 318, 337
Gebhart, A. I., 650
Gehman, H., 214
Geiger, A., 361
Geiger, W. B., 120
Geill, T., 323
Gell, P. G. H., 566
Gellhorn, E., 254

Gemmill, C. L., 18
Gensler, W. J., 234
Gerecs, A., 217
Gershenfeld, L., 455, 456, 458
Geschickter, C. F., 294
Geyer, R. P., 160
Ghosh, B. N., 442
Giacomello, G., 52, 294
Gibb, T. R. P., 644
Gibbs, G. E., 168, 244, 245
Gibian, H., 432
Gibson, C. S., 646
Gilbert, G. R., 654
Gilbert, S. G., 511, 513
Gillam, A. E., 436
Gillespie, J. M., 450, 454, 554, 561
Gilman, A., 449, 462, 465
Gingrich, W., 13, 328, 338, 555
Ginsberg, R., 168, 169
Giroud, A., 338
Gjessing, E. C., 8
Gladstone, G. P., 530
Glaser, F., 289
Glasson, B., 193, 195, 196
Glavind, J., 377, 386
Glenn, J. T., 107
Glick, F. J., 237
Glider, H., 442
Glock, G. E., 265
Glocker, R., 593
Gloor, W. E., 206
Gnüchtel, A., 219
Goadby, H. K., 278
Göbell, O., 328
Godden, W., 253
Godfrid, M., 286
Goepfert, G. J., 21
Goettsch, E., 185, 189
Goettsch, M., 373
Goldacre, R., 460
Goldberg, M., 120
Goldberg, M. W., 294
Goldberg, S. D., 462
Goldblatt, H., 168, 318, 335, 370
Goldblatt, M. W., 436
Golden, M., 137
Golden, W. R. C., 136, 141, 142, 147
Golden, P. E., 206
Goldfarb, W., 137, 322
Goldhamer, S. M., 401
Golding, N. S., 537
Goldinger, J. M., 14, 322
Gol'dshtein, B. I., 40
Golla, Y. M. L., 283
Golumbic, C., 164, 175, 377, 381
Gomori, G., 175
Goodale, W. T., 564
Goodhart, R., 323
Goodman, L., 449, 462, 465
Goodpasture, W. C., 245
Goodwin, L. G., 563
Gorbachevskaya, V., 28
Gordon, A. H., 82
Gordon, E., 296
Gordon, E. S., 312, 319
Gordon, K. M., 219
Gorham, A. T., 86, 370
Gorin, M. H., 109, 110
Gortner, W. A., 327
Goshorn, R. H., 459
Goss, H., 286, 288, 312
Gottlieb, R., 466
Gottschalk, A., 19, 574
Gould, B. S., 338, 573
Graef, E., 38
Grafflin, A. L., 433
Graham, E. R., 499, 500
Grail, G. F., 124, 126, 169, 197, 199, 200, 242
Granick, S., 11, 96, 111
Grant, C. W., 564
Grant, E. A., 88
Grassman, W., 38
Grattan, J. F., 283
Graubard, M., 295
Grauer, R. C., 137
Graves, L. J., 407
Gray, E. L., 363, 368
Grayman, I., 142, 147, 174
Greaves, J. D., 284, 368
Greaves, J. E., 569
Greeley, P. O., 145, 146
Green, A. A., 138
Green, D. E., 14, 137, 138, 144, 570, 571
Green, H. N., 450, 451, 453, 454
Green, L., 479
Green, M., 278
Green, M. H., 564
Green, R. G., 324
Green, R. H., 626
Greenberg, D. M., 251, 253, 254, 257, 258, 262
Greenberg, H., 83
Greenberg, R., 369
Greenblatt, J., 157
Greenburg, R. E., 233
Greene, C. W., 185, 188
Greene, R. R., 295, 296
Greenfield, S. S., 476, 525
Greengard, H., 128
Greenstein, J. P., 9, 85, 120
Greep, R. O., 83, 284, 285, 287, 288, 290, 291
Greer, W. A., 245
Gregg, D. C., 35
Greisen, E. C., 12, 339
Greisheimer, E. M., 142
Greslin, J. G., 310, 326
Gridgeman, N. T., 354
Griffin, F. P., 259
Griffith, H. D., 252
Griffith, W. H., 125, 126, 169, 242, 243, 310
Grim, W. M., 185, 189
Grinnells, C. D., 327
Groenewald, J. W., 257
Grollman, A., 370
Groody, M. E., 330
Groody, T. C., 330
Groothuis, M., 126, 169, 200
Gross, I. H., 146
Gross, S. T., 645
Grossowicz, N., 338, 559
Grubaugh, K. K., 454
Gruber, C. M., 464
Grundland, I., 323
Grunewald, C. F., 147, 148
Guerrant, N. B., 263
Guillaumin, C. O., 117
Guirard, B. M., 324, 328, 332, 337, 338, 553, 556, 559
Guittoneau, G., 570
Gulbransen, R., 460
Gulick, M., 147, 148
Gullickson, T. W., 160, 167
Gunsalus, I. C., 338, 556, 564, 568, 569
Gurin, S., 111, 285, 286
Guthmann, E., 431
Guthrie, J. D., 85, 120
Gutman, A. B., 102, 138
Gutman, E. B., 102, 103, 138
Gwynneth, B., 317, 323, 326
György, P., 168, 305, 308, 318, 332, 334, 335

H

Haagen-Smit, A. J., 642
Haas, E., 9, 440

Haas, H. F., 369, 564
Haas, W., 463, 643
Haber, F., 222
Haddock, J. N., 40, 278
Haden, W. W., 463
Hadfield, L. H., 653
Haege, L. F., 135
Hafez, M. M., 565
Hafkesbring, R., 142
Hagedorn, H., 650
Hageman, R. H., 525
Hague, E., 555
Hahn, G. A., 465
Hahn, L., 171, 575
Hahn, P. F., 258
Haig, C., 367, 369, 406
Haines, W. J., 139, 194
Haldane, J. S., 427
Hale, W. S., 120, 239, 563
Hall, C. E., 603
Hall, C. H., 238
Hall, H., 371
Hall, J. L., 111, 277
Hall, L., 312
Hall, R. P., 554
Hallett, L. T., 655
Halliday, D., 192
Hallman, L. F., 136, 140, 141, 145, 147, 150, 151, 164, 366, 441
Halpin, J. G., 334, 337
Halpin, J. L., 371
Halter, C. R., 318
Halter, R., 370
Halverstadt, I. F., 52, 451, 462
Ham, G. C., 290
Hamano, S., 353
Hamblen, E. C., 296
Hamilton, P., 84, 192
Hamilton, T. S., 159
Hamlin, M., 167, 170, 330
Hammer, B. W., 653
Hammett, F. S., 187
Hammond, J. C., 337
Hammond, L. D., 206
Hamner, K. C., 518
Hamon, V., 561
Hanai, S., 224
Hanaoka, K., 206
Hand, D. B., 12, 338, 339, 556
Handler, P., 13, 14, 170, 176, 311, 315, 327, 559
Handley, W. R. C., 565
Hanes, C. S., 137
Hanford, W. E., 221, 224
Hanford, Z. M., 314
Hann, R. M., 217, 223, 224, 568
Hansen, L. P., 295
Hanson, S. W., 169
Hanusch, F., 59
Hanze, A. R., 219
Happold, F. C., 565
Hardin, G., 554
Hardt, L. L., 320
Hare, R., 618
Harkins, W. D., 648
Harley, R., 260, 261
Harms, H. P., 245
Harper, H. A., 141, 143, 322
Harpley, C. H., 574
Harrer, C. J., 15, 440
Harris, J. S., 453, 562
Harris, L., 339
Harris, L. J., 323, 338
Harris, M., 120, 206, 215
Harris, P. L., 164, 357, 359, 365, 371, 373, 376, 378, 381, 382, 383, 441
Harris, R. S., 165, 323, 553, 654
Harris, T. H., 120, 239, 563
Harrison, G. A., 437
Harrison, H. C., 147
Harrison, H. E., 147
Harrison, J. A., 498
Harrison, R. W., 455, 456, 457, 458
Harrison, T. R., 370
Hart, E. B., 124, 160, 192, 251, 259, 262, 265, 312, 315, 328, 333, 334, 337
Hart, G. W., 283
Hartman, F. A., 282
Hartmann, H., 265
Harvalik, Z., 645
Haskins, W. T., 217, 223, 224
Haslewood, G. A. D., 51, 57, 62
Hass, E., 15
Hass, H. B., 224
Hassid, W. Z., 205, 479, 486, 650, 653
Hastings, A. B., 5, 10, 86, 138, 139, 144, 427, 533, 534, 543, 547, 554, 556, 574
Hatch, R. S., 206
Hatcher, B. W., 265
Hatfield, J. D., 265
Hattori, Z., 54
Hauck, H. M., 411
Haugaard, G., 27, 28, 36
Haurowitz, F., 234
Haury, V. G., 253, 464
Hauschildt, J. D., 287
Hauser, C. R., 205, 220
Hawes, R. C., 652, 653
Hawke, W. A., 377
Hawking, F., 563
Hawkins, W. L., 215, 567
Hawks, J. E., 252
Haworth, W. N., 217
Hay, L. J., 141
Hay, T., 563
Haydak, M. H., 309
Hayden, K. M., 407
Hayman, D. F., 652
Hayningen, W. E., 572
Hays, H. W., 292
Hayward, H. E., 515
Hazegawa, T., 47
Heath, C. W., 401
Heatley, N. G., 652
Hebb, M. H., 111, 624
Hecht, F., 652
Hecht, S., 367
Hedreen, C., 325
Hegsted, D. M., 333, 334, 555
Heidelberger, M., 186, 187, 274
Heidenreich, R. D., 596
Heilbron, I. M., 45, 55, 56, 57, 354, 363, 563
Heinbecker, P., 166
Heinen, H. J., 127
Helferich, B., 215, 216, 219, 223, 226
Helivig, E. B., 170
Heller, H., 291
Heller, R. E., 147
Hellerman, L., 116
Hellman, L. M., 386
Hellström, H., 430
Helmer, O. M., 36, 292, 293
Hemingway, A., 15, 172, 532, 533, 534, 535, 536, 539, 541, 542, 543
Hemmings, A. W., 436
Henderson, J. L., 234
Henderson, L. M., 164, 260, 328, 330, 332, 336
Henderson, V. E., 449
Henkel & Cie, G. m. b. H., 224
Henle, W., 599, 600
Henneberg, W., 589
Henny, G. C., 88
Henrici, A. T., 567

Henriot, E., 589
Henry, D. C., 110
Henry, K. M., 163, 251, 360
Henry, R. L., 365
Henschel, A. F., 321, 329
Henseleit, K., 194, 195, 529
Heppel, L. A., 255, 256, 257
Herbert, D., 570
Herring, V. V., 146, 282, 284, 288
Herrington, B. L., 640
Herrington, M. S., 256
Herriott, R. M., 35, 36, 86
Herrlich, H., 142, 143
Herrmann, H., 18, 21
Herzfeld, K. F., 489
Hes, J. W., 530, 546
Hess, W. C., 83, 85, 116, 118, 119, 128, 191
Hessel, F. H., 556
Hester, J. B., 263
Hetherington, A. W., 166
Hettig, R. A., 258
Heuser, G. F., 263, 321, 328, 337
Hevesy, G., 171, 575
Hewitt, L. F., 101
Hewston, E. M., 405
Heyman, W., 167
Heyns, K., 225
Hibbert, H., 205, 215, 567
Hickman, C. W., 252
Hickman, K. C. D., 164, 357, 359, 368, 373, 376, 381, 382, 383, 441
Hielscher, M., 208, 209
Highberger, J. H., 530
Highe, R. V., 319, 331
Hilditch, T. P., 161, 165, 245
Hill, A. J., 464
Hill, D. K., 431
Hill, F. W., 325
Hill, R., 487, 488
Hill, R. T., 148
Hiller, A., 83
Hillier, J., 589, 592, 596, 597
Himwich, H. E., 142, 143
Hines, H. M., 378
Hinner, E. F., 206
Hirsch, J., 561
Hirst, D. V., 296
Hirst, E. L., 205
Hirst, G. K., 618, 619
Hisaw, F. L., 279, 282, 283
Hitchcock, D. I., 110
Hitchner, E. R., 562
Hjorth, P., 338
Hoag, J. R., 124
Hoagland, C. L., 117, 556, 574, 616, 619, 622, 623, 627, 629, 630, 631
Hoagland, D. R., 183, 493, 495, 501, 502, 503, 520, 525
Hoagland, P. I., 437, 442
Hoagland, R., 158, 160, 162
Höber, R., 449
Hobby, G. L., 563
Hoberman, H. D., 6, 19
Hock, C. W., 564
Hockett, R. C., 225
Hodge, E. S., 525
Hodge, H. C., 169, 243
Hodgeboom, G. H., 12
Hodson, A. Z., 324
Hoecker, W. H., 653
Hoehn, H. H., 378
Hoehn, W. M., 62
Hofer, M. J., 306, 309, 319, 324, 327, 328, 334, 335, 337, 553, 556
Hoffman, C., 459
Hoffman, M. M., 265, 296
Hoffman, O. D., 124
Hofmann, K., 33
Hogan, A. G., 311, 317, 329, 330, 333, 334, 337
Högberg, B., 322
Hoglan, F. A., 214
Hogness, T. R., 8, 9, 15, 440
Holden, H. F., 263
Holden, R. F., Jr., 167
Holiday, E. R., 88
Hollander, G., 439
Holliday, D., 122
Holman, W. L., 142
Holmes, F. E., 653, 641
Holmes, F. O., 599
Holmes, H. N., 339, 353
Holmgren, H., 322
Holt, L. E., Jr., 326
Holter, H., 39, 652
Holtz, P., 16, 573
Holzapfel, L., 615
Hood, D. B., 333
Hooper, J. H., 371
Hoover, S. R., 31
Hopkins, F. G., 441, 442
Horeau, A., 222
Horn, M. J., 85, 118, 119, 128
Hornecker, B. L., 9
Horner, C. K., 524
Horning, E. S., 562, 563
Horsters, H., 439
Horwitt, M. K., 33
Hoskins, M., 631
Hotchkiss, R. D., 82, 239, 563
Hottinger, A., 128
Hottle, G. A., 555
Houchin, O. B., 17, 378, 379
Hough, V. S., 54
Houssay, B. A., 292
Hove, E., 265
Höygaard, A., 365, 369
Hsu, H.-C., 403
Hubbard, R. S., 453
Hubbell, M. L., 206, 371
Hudson, C. S., 214, 216, 217, 221, 223, 224, 225, 568
Huff, J. W., 14, 327
Huffman, H. M., 188, 195, 254, 255
Huggett, A. St. G., 563
Huggins, C., 33
Hughes, E. D., 205
Hughes, E. H., 256, 330
Hughes, H. B., 50, 54, 564
Hughes, J. S., 252
Hughes, T. P., 622
Hughes, W. L., 100, 101
Hull, F. E., 254
Hüll, G., 219
Hultquist, M. E., 650
Hume, E. M., 161, 354, 375
Hummel, F. C., 124
Humphreys, S., 330, 333
Hunsberger, A., 54
Hunt, E. P., 406, 407, 419
Hunt, M. L., 562
Hunter, A., 194
Hunter, F. E., 166, 240
Hunter, G., 415
Hunter, H., 651
Hunziker, F., 56
Hurd, C. D., 219
Hurst, V., 282
Hurwitz, S. H., 188
Huseman, E., 607, 608
Huszak, I., 9
Hutchens, J. O., 10, 554

Hutchings, B. L., 334, 555, 557
Hutner, S. H., 338, 555, 561
Hutt, F. B., 320, 321
Hybbinette, A. G., 652
Hyde, J. L., 487, 489

I

Ibsen, M., 440, 455, 456, 458
Ido, T., 45, 46
Ihde, A. J., 327
Imai, I., 46, 49
Imamura, H., 47
Imboden, M., 371
Imshenetskii, A. A., 567, 568
Ingersoll, A. W., 464
Ingham, J., 436
Ingle, D. J., 283
Ingold, C. K., 205, 219
Ingraham, M. A., 369
Innes, J. R. M., 260
Inoue, Y., 235
Inouye, K., 650
Ionescu, M., 224
Irie, T., 462
Irreverre, F., 119, 124
Irving, G. W., Jr., 17, 29, 30, 31, 32, 33, 36, 37, 289, 290, 291
Irving, J. T., 252
Isaacs, T. L., 499, 500, 501
Isaka, H., 49
Isbell, E. R., 306, 313, 324, 327, 328, 331, 334, 335, 337, 553, 556
Isbell, H., 334, 555, 556
Isbell, H. S., 206, 214, 216, 218, 219, 223, 225
Ishida, S., 49
Ishihara, T., 46, 47
Ishino, N., 46
Itikawa, N., 338
Itschner, K. F., 311, 330, 333
Ittner, N. R., 256, 330
Ivy, A. C., 54, 128, 137
Iwadare, K., 223
Iwaschkewitsch, M. A., 568

J

Jackson, E. L., 206, 214, 225
Jackson, J., 217
Jackson, R. F., 206, 223
Jacobi, H. P., 169, 197, 198, 199, 242, 310, 311
Jacobsen, C. F., 27, 87, 115, 276, 277
Jacobson, W., 442
Jacquot, R., 553
Jaeger, B., 294
Jakob, A., 597, 598
Jakobsen, J., 381
Jakus, M. A., 603
James, L. H., 556
Jamieson, W. A., 563
Jandorf, B. J., 14, 15, 554, 556
Janes, R. G., 148
Jansen, E. F., 30, 37
Janssen, L. W., 619
Jasper, H. H., 319
Jeanes, A., 225
Jeans, P. C., 367
Jeffers, W. A., 291
Jelley, E. E., 645
Jenke, M., 53
Jenner, E. L., 464
Jennings, R. K., 38
Jenny, H., 501
Jenrette, W. v., 85
Jensen, C. W., 274, 367
Jensen, H., 276, 282, 283, 285
Jensen, H. B., 362
Jensen, O. G., 311, 326, 330, 441
Jerchel, D., 456, 459, 566
Jervis, G. A., 310, 311
Jochinke, H., 219
Joffe, M., 373
Johannsen, H., 588, 593
Johansen, G., 40
John, W., 378
Johns, H. E., 284
Johns, I. B., 642, 653
Johnson, B. C., 337
Johnson, C. G., 54
Johnson, C. M., 505, 506
Johnson, C. R., 640
Johnson, E., 323, 324, 410
Johnson, F. H., 316, 336, 561, 564
Johnson, G. A., 306, 309, 324, 327, 328, 334, 335, 337, 556
Johnson, J., 631
Johnson, J. E., 139, 194
Johnson, J. M., 40
Johnson, M. J., 4, 20, 39, 553, 557, 571, 572, 574
Johnson, M. L., 37, 38
Johnson, M. S., 41
Johnson, R. F., 252
Johnson, S. R., 263, 371
Johnson, T. B., 275
Johnson, V., 158
Johnson, W. A., 537, 547
Johnson, W. H., 309, 554
Johnson, W. S., 294
Johnston, C., 164, 441
Johnston, C. H., 140
Johnston, M. W., 145
Jolliffe, N., 333, 414
Jones, C. A., 167
Jones, C. P., 556
Jones, D. B., 85, 118, 119, 128
Jones, E. R. H., 45, 55, 56
Jones, J. H., 163, 251
Jones, L. R., 561
Jones, W. G. M., 217, 218
Jones, W. J. G., 212
Jones, W. S., 327
Joost, E., 57
Jordan, D. O., 451, 453, 462, 562, 563
Josephson, B., 50, 52, 54
Josephson, E. S., 323, 553, 654
Jowett, M., 20, 449
Jugner, G., 50, 54
Jukes, T. H., 197, 263, 334
Julian, O. C., 174
Jungeblut, C. W., 631
Junowicz-Kocholaty, R., 5

K

Kabat, E. A., 102, 103, 104
Kahlenberg, O. J., 257, 311, 326, 329, 330, 441
Kahler, H., 319, 325
Kahn, J. R., 370
Kaiser, W., 377, 384
Kalamanson, G., 619
Kalckar, H., 2, 547
Kalckar, H. M., 564, 574
Kalinenko, V. O., 563
Kamen, M. D., 11, 258, 479, 486, 487, 488, 489, 537, 543, 545, 546
Kamm, O., 45
Kane, F., 233
Kaplan, M. H., 385
Kardo-Sysoeva, E. K., 338
Kark, R., 436
Karn, H. W., 319

Karper, P., 361, 373
Karrasch, R. J., 337
Karrer, P., 13, 16, 234, 241, 358, 373
Kass, J. P., 175, 235
Kassell, B., 34, 83, 84, 116, 119, 122, 127, 274
Kast, C. C., 597, 598
Katz, E., 478, 480, 483, 488
Katzman, P. A., 286
Kausche, G. A., 594, 597, 599, 600, 601, 602, 620, 621, 626, 627
Kautsky, H., 482, 483, 488, 489
Kautzsch, A., 117
Kauzmann, W. J., 57
Kavanagh, F., 338
Kavanagh, K. E., 115
Kawai, H., 338
Kayland, S., 293
Kaziro, K., 53
Kazmin, V. E., 296
Kazuno, T., 47, 48, 49, 50, 62
Kearney, W., 386
Keeton, R. W., 168, 169
Keighley, G. L., 183, 184, 188
Keilin, D., 9, 19, 440, 574
Keith, T. B., 263
Kekwick, R. A., 95, 100, 101, 102, 104, 625
Keller, H., 373
Keller, M., 339
Kellie, A. E., 338
Kelly, E., 164
Kelman, E. M., 167, 377
Keltch, A. K., 16, 454
Kemmerer, A. R., 325, 365, 367, 455, 556
Ken, K. C., 365
Kench, J. E., 436
Kendall, E. C., 147, 273, 293, 294
Kendall, F. E., 127, 184, 185
Kennan, H. C., 284
Kennedy, A. M., 436
Kennedy, E., 311
Kennedy, S. R., 480
Kenney, A. W., 205
Kensler, C. J., 18, 318
Kent-Jones, D. W., 323
Kenyon, W. O., 219
Kerr, R. W., 568
Kerr, W. J., 188
Keston, A. S., 278
Keston, H. D., 167
Keys, A., 100, 321, 329
Keys, T. E., 397
Kharasch, M. S., 222
Kibrick, A., 107, 109, 110
Kidder, G. W., 309, 554
Kies, M. W., 32
Kilpatrick, A., 252
Kim, C. H., 46, 47, 48, 50, 53
Kimura, T., 45, 46, 47, 62
Kind, A., 57
Kinder, F., 259
King, C. G., 119, 319, 338
King, E. J., 430
King, H., 466
King, W. C., 142
Kirch, E. R., 324
Kirk, E., 239, 240
Kirk, P. L., 646, 650, 653
Kishi, S., 45
Kistiakowsky, G. B., 35
Klar, E., 440
Klarmann, E. G., 455
Kleczkowsky, A., 106
Kleiber, M., 254
Kleimenhagen, P., 338
Klein, D., 143
Klein, J. R., 13, 14, 311, 327, 328, 559
Klein, M., 563
Kleinzeller, A., 540
Klemm, O., 81
Klemperer, F. W., 86, 144, 533, 534, 543, 547, 556, 574
Klenk, E., 237, 238, 245, 246
Kligler, I. J., 559
Kline, B. E., 442
Kline, E., 206
Kline, O. L., 162, 333
Klingman, W. O., 377
Klose, A. A., 51, 124
Kluyver, A. J., 213, 534, 537
Knandel, H. C., 325
Knapp, G. M., 292
Knauf, A. E., 217
Knight, B. C. J. G., 240, 551, 573
Knight, C. A., 83, 616, 618, 619, 620, 621
Knoefel, P. K., 253, 465
Knoevenagel, C., 218, 219
Knoll, M., 588, 589
Knopf, B. W., 254
Knott, E. M., 252
Knox, R., 566
Knox, W. E., 14, 144, 570, 571
Knudsen, L. F., 371
Koch, R., 566
Kochhar, B. D., 327
Kocholaty, W., 563
Kockakian, C. D., 400
Koechlin, B., 46
Koenig, H., 16, 234, 241, 373
Koenig, O., 51
Koepsell, H. J., 4, 20, 571, 572
Koester, H., 60
Kofler, A., 643, 646, 647, 650
Kofler, L., 643, 646, 647, 650
Koft, E., Jr., 464
Kohlstaedt, K. G., 292
Kohn, E. J., 224
Kohn, H. I., 453, 562
Kolb, J. J., 84, 119
Kolb, L., 334
Kolodziejska, Z., 358
Kolthoff, I. M., 116, 372, 649, 653
Kon, P. M., 37
Kon, S. K., 37, 163, 251, 360
Konigsberg, M., 219
Koon, C. M., 206
Koop, C. E., 317
Kopac, M. J., 10
Kopp, C., 474, 475, 476
Korb, J. J., 117
Korenberg, M., 174
Korsakova, M. P., 565
Koschara, W., 442
Koser, S. A., 16, 329, 555, 559
Kotake, Y., 338
Köthnig, M., 218
Kraemer, E. O., 101, 106, 205
Kraft, H., 211
Krahl, M. E., 10, 14, 15, 16, 454
Kramke, E. H., 371
Krampitz, L. O., 15, 239, 559, 563, 571
Kraus, G., 145
Krause, A. C., 367
Krause, F., 595, 596, 607
Krause, M. E., 333
Kraybill, H. R., 54, 175
Krebs, H. A., 15, 194, 195, 529, 532, 534, 537, 539, 540, 541, 542, 544, 546, 547, 557, 558, 565

Kreider, L. C., 214
Krejci, L. E., 106
Kreke, C. W., 465
Kremer, C. B., 462
Kretschmer, M., 605
Kreysa, F. J., 654
Kringstad, H., 311
Krueger, A. P., 631
Kruger, J., 62
Kruse, H. D., 338, 402, 408, 418, 419, 420, 421
Kubowitz, F., 4
Kuck, J., 652
Kuether, C. A., 338
Kugelmass, I. N., 386
Kuhn, R., 206, 207, 215, 456, 457, 459, 566
Kühr, C. A. H. v W., 569
Kulp, W. L., 569
Kumler, W. D., 52, 53, 451, 453, 462
Kummerow, F. A., 159, 162, 311, 330, 333, 383
Kuna, S., 36
Kunerth, B. L., 397
Kunitz, M., 32, 34, 94, 95, 101
Kunz, A., 640
Kupermintz, N., 575
Kurauti, Y., 47, 49
Kurtz, L. T., 648
Kushner, S., 293
Kuwada, S., 54, 55, 60
Kuzin, A., 221
Kuzin, A. M., 206
Kuzmeski, J. W., 367
Kyogoku, K., 49

L

Laborey, F., 556
Lackman, D. B., 597, 598, 627
Lagsdin, J. B., 104
Lahr, E. L., 282
Lamanna, C., 316, 336
Lambert, E. F., 166
Lamoreux, W. F., 320, 321
Lampen, J. O., 334, 336, 450, 554, 555
Landau, R. L., 170, 197, 198, 242
Landerkin, G. B., 552
Landquist, V. L., 339, 413
Landsteiner, K., 81, 620
Landy, M., 310, 316, 333, 334, 336, 555
Lane, R. E., 436
Lane, R. L., 306, 309, 323, 324, 327, 328, 334, 335, 337, 410, 553, 556
Lanford, C. S., 253, 259, 404
Lang, E. H., 278
Lapin, L. N., 54
Laqueur, E., 283
Larsen, E. H., 385, 386, 387
Larson, P. S., 188
Larsson, H., 50
Laser, H., 21
Laskowski, M. J., 16, 122
Laszlo, D., 318
László, É., 221
Lauber, A., 51
Lauer, W. M., 234
Lauffer, M. A., 95, 111, 285, 616, 620, 625, 626
Lavietes, P. H., 274
Lavin, G. I., 30, 280, 619, 623
Lavine, T. F., 117
Lavollay, J., 556
Lawrenz, M., 265
Lease, E. J., 253, 369
Leblond, C. P., 275, 282
Lechyka, M., 329, 338
Lecowich, T., 413
Ledingham, J. C. G., 621
Lee, D. D., 185, 186
Lee, J. G., 317, 329
Lee, M., 279, 282, 283
Lee, S. B., 5, 6, 19
Lee, W. C., 185
Lees, H., 354
Leete, J. F., 223
Lefevre, C., 117, 123
Legge, J. W., 11, 429, 439
Lehman, R. W., 373
Lehman, W., 146
Lehmann, G., 253, 464, 465
Lehmann, H., 252
Lehmann, J., 324
Lehninger, A. L., 20, 571
Lehr, J. J., 511
Leibowitz, J., 575
Leighton, P. A., 654
LeLoir, L. F., 292, 293
Lemberg, R., 11, 429, 437, 439
Lembke, A., 597, 599
Lenti, C., 316, 336
Leonian, L. H., 309, 552, 553
Leopold, W., 237
LePage, G. A., 1, 164, 368, 564
Lephene, G., 439
Lepkovsky, S., 332, 333, 440
Lerman, J., 273
Le Rosen, A. L., 361
Lesser, M. A., 340
Lester, D., 57
Lesuk, A., 236, 237
Lettré, H., 370
Leuchtenberger, R., 318
Leuthardt, F., 192, 193, 195, 196
Leutscher, J. A., 97, 100, 101, 102, 103, 104
Levene, P. A., 88
Leverton, R. M., 252, 317, 400, 401, 403, 404, 418
Levi, I., 567
Levin, L., 282
Levine, R., 145, 146, 147
Levy, S., 387
Lew, W., 185, 186
Lewis, C. M., 475, 477, 478, 484
Lewis, H. A., 370
Lewis, H. B., 51, 120, 121, 122, 123, 185, 193, 397
Lewis, H. F., 205, 206
Lewis, I. M., 627
Lewis, J. C., 555
Lewis, J. M., 406
Lewis, K. H., 309, 331
Lewis, T., 354
Lewis, W. L., 212
Lewisohn, R., 318
Lewsen, S. C., 339
Li, C. H., 111, 280, 281, 283, 284, 285, 286, 287, 288
Libet, B., 145
Lieb, H., 240, 246
Lieberman, S., 296
Liebig, G. F., Jr., 514
Liebson, L. G., 148
Liebson, R. S., 148
Liggett, R. W., 219
Light, A. E., 329, 338
Lightfoot, C. C., 254, 255
Lillie, R. D., 126, 168, 200, 243, 310
Lillie, R. S., 449
Lilly, V. G., 309, 552, 553
Lin, W. D., 464
Lindahl, P. E., 39
Lindeberg, G., 309, 335
Linderstrøm-Lang, K., 27, 40, 87, 115, 277, 652
Lindholm, H., 323
Lindner, M., 556

Lindpainter, E., 647
Lindstrom, H. V., 119
Lineweaver, H., 30, 31
Lingane, J. J., 649
Link, K. P., 211, 385, 386
Linnell, W. H., 294, 460, 462, 563
Lipmann, F., 1, 2, 3, 4, 7, 12, 18, 19, 20, 82, 533, 534, 538, 547, 564, 574
Lippincott, S. W., 326
Lipton, M. A., 14, 322
Little, J. M., 158
Liu, S. H., 252, 403
Livermore, A. R., 372
Livezey, M. M., 291
Livingood, J. J., 276, 277
Livingston, R., 475
Llacer, A. J., 651
Lochhead, A. G., 552, 555, 556
Locke, A., 450
Lockhart, E. E., 165
Lockwood, J. S., 450, 455, 456
Lockwood, L. B., 225, 568
Lockwood, W. H., 11, 429, 437
Loeb, D., 293
Loeb, H. G., 167
Loewenstein, E., 652
Loewy, A., 158
Logan, C. H., 402
Logan, M. A., 240
Logemann, W., 60
Lohmann, K., 251
Loizides, P. A., 169
Lojander, W., 338
Long, B., 555
Long, C. N. H., 136, 141, 142, 147, 166, 280, 281
Long, P. H., 450
Longsworth, L. G., 98, 99, 100, 102, 103, 110, 111, 632
Longwell, B. B., 295
Loomis, T. A., 453
Lorand, E. J., 221
Lorenz, F. W., 244
Lorenz, O. A., 522
Loring, H. S., 97, 617, 618, 632
Lorr, J. A., 556
Loth, R., 572
Lothian, G. F., 434
Lott, W. A., 463, 464
Lough, S. A., 127
Löw, I., 215
Lowater, F., 265
Lowe, B., 164, 165
Lowff, A., 551, 554, 561
Lowndes, J., 82
Lowry, J. V., 243, 322
Lowry, O. H., 652
Loy, H. W., Jr., 371
Lucas, C. C., 116
Lucas, H. J., 226
Luck, J. M., 185
Ludden, J. B., 168
Ludwig, B. J., 449, 452, 453, 561
Luffer, M. A., 83
Lukens, F. D., 20
Lund, C. C., 339
Lunde, G., 311
Lundeen, H., 324
Lundegårdh, H., 503
Lundgren, H. P., 28, 87, 104, 105, 111, 274, 286
Lundquist, N. S., 367
Lur'e, S. I., 465
Luria, S. E., 599, 600, 602, 627, 630
Lutwak-Mann, C., 565
Lwoff, A., 574
Lyman, C. M., 14, 322, 559
Lynen, F., 575
Lynn, J., 100
Lyon, C. B., 264, 518, 519
Lyons, R. E., 458, 459
Lyons, W. R., 279, 280, 281, 282
Lythgoe, B., 56
Lyttle, J. D., 185, 189

M

Ma, R., 309, 338, 555
Ma, T. S., 653
Macara, T. J. R., 82
MacBryde, C. M., 170, 371
MacCallum, F. O., 631
MacCampbell, C. W., 252
Macdonald, H., 318
MacFarlane, M. G., 240, 573, 622, 630
MacFayden, D. A., 83, 84
MacInnes, D. A., 98, 99, 100, 102, 103, 632
MacIntire, W. H., 265
Mack, P. B., 402
MacKay, E. M., 135, 136, 151, 165, 172, 173, 176
MacKay, H., 252
MacKenzie, C. G., 126, 168
Mackinney, G., 365, 478
MacLachlan, P. L., 169, 243
MacLeod, C. M., 450
MacLeod, F. L., 252
MacLeod, G., 401
MacLeod, J. J. R., 245
Macley, W. D., 568
MacMillan, M. J., 371
MacMunn, C. A., 437
MacPherson, A. I. S., 288
MacPherson, H. T., 84
MacPhillamy, H. B., 57, 223, 370
Macrae, T. F., 433
Macy, I. G., 124
Madden, S. C., 186
Madsen, L. L., 358, 367
Maeda, K., 46, 47
Magalhaes, H., 142
Magee, J. L., 476
Magnigau, W. H., 56
Magnus-Levy, A., 150
Maher, F. T., 439
Mahl, H., 589, 597, 598, 605
Mahoney, J. F., 640, 648, 653
Maidson, O. Yu., 465
Main, E. R., 450
Maisin, J. H., 317
Major, R. H., 293
Malan, A. I., 257
Malaprade, H., 237
Malm, C. J., 206
Malm, M., 324
Malowan, L. S., 651
Mamoli, L., 566
Man, E. B., 274
Mandelbaum, J., 367
Mangelsdorf, P. C., 365
Manifold, M. C., 200
Mann, F. C., 143
Mann, W., 275, 282
Mannich, C., 464
Manning, W. M., 475, 476
Mapson, L. W., 338
Marchand, B., 237
Marchello, A., 158
Marcy, H. O., 11, 432
Margoles, C., 293
Margolis, L. H., 327
Mariani, P. J., 384
Marion, A., 648
Mark, H., 206
Mark, J., 296
Marker, R. E., 56, 57, 58, 59, 61, 62
Marks, H. C., 449, 452, 453, 561
Marquis, M., 257
Marsh, A. G., 252, 317, 401, 403, 404

Marsh, R. P., 511
Marshall, D., 254
Marshall, E. K., Jr., 450, 455, 456
Marshall, M. E., 400
Marston, H. R., 260
Martin, A. J., 82, 84
Martin, A. R., 215
Martin, C. J., 185, 186
Martin, G. J., 313, 316, 335, 336, 337, 450, 561, 562
Martin, H., 317
Martin, H. E., 145
Martin, K. A., 427
Martin, L. C., 588, 596
Martin, R. J. P., 364
Martinet, M., 338
Martini, A., 651
Marton, L., 588, 589, 590, 591, 592, 593, 594, 595, 596, 602, 608, 609, 626, 628
Marx, W., 283, 284
Maschmann, E., 38
Mason, C. W., 645, 646, 647
Mason, H. L., 62, 319, 325, 408
Mason, K. E., 373, 376, 380, 381, 384
Mason, T. G., 507, 509, 517
Massengale, O. N., 371
Masur, B. L., 530
Matthiessen, G., 650
Matti, J., 561
Mattill, H. A., 164, 376, 377, 378, 379, 380, 381
Mattson, F., 164, 366, 441
Matuo, M., 39, 40
Maurot, G., 183
Maver, M. E., 40
Maxwell, M., 449, 460, 462
May, O. E., 538
Mayer, R. L., 450
Mayfield, H. L., 411
Maynard, L. A., 159, 251, 260, 262, 263
Mayrhofer, A., 643, 647, 650
Mazur, A., 57
Mazza, F. P., 316, 336
McAlister, E. D., 479, 480, 481, 482, 483, 484, 485, 488
McAllister, J., 562
McAllister, S. H., 221
McBain, J. W., 455, 609
McBeath, E. C., 372
McCalla, T. M., 458, 459
McCance, R. A., 252, 259, 265
McCarthy, T. E., 117
McCarty, M. A., 263
McCay, C. M., 266, 309, 317, 337
McChesney, E. W., 335
McClellan, V., 102, 103
McClelland, L., 618
McClenahan, W. S., 568
McClendon, J. F., 264, 273, 274
McClure, F. J., 264
McCollum, E. V., 183, 255, 257, 265
McCoord, A. B., 367, 368, 369
McCormick, W. J., 322
McCoy, E., 572
McCready, R. M., 650, 653
McCutcheon, A., 188
McDonald, E. J., 206, 223
McDonald, M. R., 32
McDougall, E. I., 260
McDougall, E. J., 136
McDowell, H. D., 223
McEachern, D., 323
McElroy, L., 384
McElroy, L. W., 312, 433
McFarland, R. A., 407
McFarlane, A. S., 93, 95, 102, 616, 622, 625
McGettrick, W., 218
McGinnis, J., 337
McGuire, G., 406
McHard, J. A., 654
McHargue, J. S., 525
McHenry, E. W., 169, 170, 198, 242, 310, 318, 337, 414, 415
McIlwain, H., 316, 331, 336, 454, 458, 460, 559, 561, 562, 563
McIntire, F. C., 556, 567
McIntire, J. M., 164, 260, 328, 330, 336
McIntosh, J. A., 414
McIntyre, A. R., 463
McKay, E. M., 185
McKay, H., 397, 403, 404
McKee, F. S., 295
McKibbin, J. M., 170, 327, 333, 337, 340
McLaren, A. D., 32
McLester, J. S., 414
McMahan, J. R., 309, 316, 324, 327, 328, 332, 334, 335, 337, 553, 556
McMeekin, T. L., 100, 101
McMillen, J. H., 609
McNabb, W. M., 654
McNevin, W. M., 653, 654
McQuarrie, I., 141
McSwain, B., 292
McVeigh, I., 312, 333, 335, 366, 557
Mead, J. F., 274, 275
Mead, T. H., 353, 358, 360
Meamber, D. L., 281, 283
Means, J. W., 385
Mecchi, E., 193
Medes, G., 121, 123
Meek, W. J., 197
Meikeljohn, A. P., 323, 436
Meikeljohn, G. T., 338
Meites, J., 282
Melkonian, G. A., 209
Mellon, R. R., 450
Melnick, D., 325, 327, 409
Melnick, J. L., 7, 10, 574
Mendel, L. B., 183, 184
Menke, W., 607
Menotti, A. R., 385
Merrill, M. H., 631
Messer, A. C., 241
Metcalf, E. A., 212
Metcalf, R. L., 309
Meyer, C. E., 441
Meyer, G. M., 185
Meyer, H., 449
Meyer, K., 563
Meyer, K. A., 367, 369
Meyer, K. H., 81, 138, 205, 449
Meyer, R. K., 58
Meyerhof, O., 5, 151, 533
Meystre, C., 294
Michaelis, L., 10, 11, 111
Michaelis, R., 563
Michaelree, J. F., 326
Michell, J. H., 225, 653
Michels, H., 483
Middlebrook, W. R., 86, 87, 115
Mieschcr, K., 56, 60, 294
Mika, J., 653
Mikusch, J. D. v., 234
Milanick, V. E., 455, 456
Milazzo, G., 52
Milhorat, A. T., 185
Militzer, W. E., 309, 331
Miller, A., 219
Miller, B. F., 455, 456, 457, 458, 563

Miller, D., 337
Miller, E., 234
Miller, E. G., 89
Miller, E. S., 157
Miller, G. L., 83, 88, 111, 119, 277, 623, 624
Miller, H., 640
Miller, H. C., 372
Miller, H. K., 190
Miller, J. R., 253
Miller, L. L., 127, 258
Miller, M. H., 330, 333
Miller, M. L., 386
Miller, O. N., 334
Miller, P. A., 309, 337, 555
Miller, R. A., 283
Miller, R. C., 263
Millman, S. R., 225
Mills, C. A., 310, 312, 320, 323
Mills, R., 252, 403, 405
Mills, R. C., 124, 192, 315, 328, 333, 334, 337
Milstone, H., 98
Miner, C. S., 572
Minges, P. A., 522
Minibeck, H., 53
Minor, F. W., 215
Minot, A. S., 339
Mirer, M. L., 141
Mirimanoff, A., 556
Mirski, A., 137, 141
Mirsky, A. E., 88, 120
Mirsky, I. A., 142, 147, 173, 174, 176, 277
Mitchell, C. R., 309, 317, 337
Mitchell, H. H., 184, 185, 252, 265, 403
Mitchell, H. K., 306, 313, 315, 316, 320, 321, 324, 327, 328, 331, 334, 335, 336, 337, 454, 552, 553, 555, 556, 562
Mitchell, H. S., 259
Mitchell, J. H., 253
Mitchell, J. H., Jr., 54, 175
Mitchell, M. H., 544
Mitter, P. C., 234
Mitui, T., 60
Miyaji, S., 45, 46, 47, 50
Moetsch, J. C., 450
Moldtmann, H. G., 237
Molitor, H., 36
Moll, T., 360
Möller, E. F., 331, 456
Monaco, H., 295
Montfort, C., 475
Montgomery, E. M., 216
Montigel, C., 147, 294
Moody, F. B., 219
Moon, H. D., 283
Moore, D. H., 89, 98, 100, 102, 103, 282
Moore, K., 316, 336
Moore, L. A., 256, 364
Moore, M. B., 463
Moore, P. R., 368
Moore, R. A., 386
Moore, S., 84
Moore, T., 356, 369
Morehouse, M. G., 150
Morel, M., 328, 559, 561, 565
Morf, R., 358
Morgan, A. F., 310, 320
Morgan, C. L., 253
Morgan, E., 317, 323, 326
Morgan, P. W., 205
Morgan, R. S., 354, 359
Morgan, V. E., 427
Morgan, W. T. J., 88
Morgareidge, K., 365, 368
Morgulis, S., 164, 380
Mori, T., 45, 46, 49, 50
Morii, S., 323
Morrell, E., 252
Morris, H. P., 326
Morrison, D. B., 442
Mortensen, R. A., 645
Morton, A. A., 640, 648
Morton, H. E., 597, 603, 627
Morton, M. E., 275, 282
Morton, R. A., 45, 354, 359, 362, 363, 365
Moss, W. G., 370
Mothes, K., 475
Mowry, D. T., 161, 175, 233
Moxon, A. L., 128, 129
Moyer, A. J., 538
Moyer, A. W., 20, 170, 196, 197, 242
Moyer, L. S., 109, 110, 478
Moyle, W. J., 417
Mudd, S., 561, 595, 597, 598, 601, 602, 627
Muelder, K. D., 164
Mueller, A. J., 189
Mueller, H. O., 592, 593
Mueller, J. H., 309, 337, 552, 555
Mueller, W. S., 259
Mühlbock, O., 283
Muir, R. D., 561
Muir, R. M., 52
Mulder, A. G., 174
Mulford, D. J., 125, 126, 169, 242, 243, 310
Muller, F. H., 605
Muller, H., 605
Muller, O. H., 21, 649
Müller, R., 464
Muller, R. H., 642
Müller, S., 220
Mullikin, B., 166
Mullins, L. J., 1
Mullison, E., 510
Mullison, W. R., 510
Münch, A., 277, 278
Munk, L., 570
Munks, B., 124
Muñoz, J. M., 292, 293
Munro, H. N., 188
Munsell, H. E., 325
Muntwyler, E., 255
Murlin, J. R., 159, 400
Murphy, A. J., 21
Murphy, E. F., 411
Murray, M. M., 264, 265
Murray, S., 136, 140, 141, 147, 150, 151
Murrill, W. A., 128
Mushatt, C., 330, 333
Musher, S., 385
Mushett, C. W., 36, 328, 556
Muus, J., 275
Myers, J., 474, 480, 481, 482, 483, 484, 485, 488
Myers, V. C., 255
Mylon, E., 98, 255, 256

N

Nachmansohn, D., 15
Nadeau, H., 415
Nafziger, H., 237
Nagel, R. H., 651
Nahinski, P. J., 11
Nahm, H., 570
Najjar, V. A., 326
Nakamura, K., 54
Nakamura, Y., 223
Nakayama, H., 536
Nakayama, M., 39
Nakimovkaia, M., 556
Nasset, E. S., 311, 312, 331, 378
Neal, W., 33
Neber, M., 139
Neber, S., 193
Necheles, H., 170
Negelein, E., 10, 476
Neher, H. T., 212
Neish, A. C., 478
Neisser, K., 56

Nelson, J. M., 12, 111
Nelson, J. W., 100, 103, 286, 287
Nelson, N., 142, 147, 174
Nelson, P. M., 164, 165
Nelson, V. E., 164, 165
Nelson, W. O., 148, 295
Nesbitt, F. B., 139
Nesbitt, S., 434, 435
Ness, A. B., 294
Ness, A. T., 224
Neter, E., 453, 454, 563
Neuberger, A., 95
Neurath, H., 88, 94, 101, 110, 616, 624, 625, 626, 627
Nevens, W. B., 184, 185
Newburger, R. A., 141
Newell, J. M., 100, 101
Ney, F. L., 119
Nicholls, J., 330, 334
Nicholls, J. R., 323
Nichols, J., 175, 235
Nichols, L., 646
Nichols, S. H., Jr., 206, 223
Nicholson, T. F., 142
Nickerson, R. F., 206
Nicolet, B. H., 85, 190, 225, 276
Nicoll, W. D., 206
Niederl, J. B., 221, 651, 653
Niederl, V., 651, 653
Niederlander, K., 62
Nielsen, E., 165, 313, 333, 440
Nielsen, H. E., 324
Nielsen, N., 575
Nielsen, R., 551
Nielson, E., 333, 335, 337
Nielson, P. E., 171
Niemann, C., 81, 274, 275, 327
Nier, A. O., 15, 172, 532, 533, 534, 535, 536, 539, 541, 542, 543
Nieuwland, J. A., 459
Nightingale, G. T., 521, 522
Nishina, Y., 536
Nitti, F., 561
Nitzberg, T., 323
Niven, C. F., 567, 569, 573
Noack, K., 553
Noble, R. L., 283
Noddack, W., 474, 475, 476
Nolan, A. F., 254
Noller, C. R., 642, 648
Norberg, B., 118
Nord, F. F., 15, 21, 551
Norman, A. G., 205, 206, 568
Norris, E. R., 442
Norris, L. C., 263, 321, 328, 337
Norris, W. P., 175, 237
Northey, E. H., 450
Northrop, J. H., 34, 88, 94, 95, 101, 105, 106, 618
Norton, A. R., 653
Nunn, L. C. A., 161, 234
Nutting, H. W., 259
Nuyens, M., 589
Nylin, G., 322

O

Ochoa, S., 1
O'Connor, R. C., 567
Oda, T., 48
O'Dell, R. A., 116
Ogden, E., 291
Ogg, C. L., 653
Ohle, H., 208, 209
Ohlson, M. A., 252, 403, 404
Ohta, K., 46, 47, 48, 49
Ohta, T., 567
Ohyama, Y., 53
O'Kane, D. J., 1, 556, 568
Olcott, H. S., 378, 380
Oldham, H. G., 258
Olken, H. G., 273
Olson, O. E., 129
Oncley, J. C., 89, 97, 100, 101
Ondratschek, K., 553
Opie, J. W., 372, 378
Ordal, E. J., 455, 456
Orent-Keiles, E., 255, 257
Orning, A., 208
Ornstein, L. S., 488
Orr, W. F., 98
Orsini, D., 314
Örström, A., 539, 544
Orten, A. U., 262
Orten, J. M., 141
Osborne, T. B., 183, 184
Oser, B. L., 327
O'Shea, H. E., 319, 331
Otsuki, C., 463, 464
Ott, E., 206
Ott, G. L., 324
Otto, C. E., 646
Outhouse, J., 252, 403, 405
Overman, A., 164
Overman, R., 149, 317, 330
Overman, R. S., 385, 386
Overstreet, R., 499, 500, 501
Overton, E., 449
Owen, C. A., 387
Owen, L. N., 212, 217
Owens, F. M., Jr., 170
Oxford, A. E., 554, 563

P

Packer, D. M., 609
Page, I. H., 36, 292, 293
Pagel, H. A., 653
Paley, K., 406
Palmer, A. H., 94, 107, 109, 110
Palmer, E. D., 83
Palmer, L. S., 309
Pantin, C. F., 442
Papadimitriou, I., 224
Pappenheimer, A. M., 358, 373, 376, 377, 555
Pappenheimer, A. M., Jr., 28, 104, 105
Park, C. R., 336, 450, 555
Parke, H. C., 464
Parker, E. R., 510
Parker, R. F., 622, 630
Parker, W. E., 259
Parks, J., 386
Parnum, D. H., 588, 596
Paschkis, K. E., 283, 295
Pasternack, R., 225, 226
Patek, A. J., Jr., 367, 369
Patelski, R. A., 226
Patermann, M. L., 105
Patrick, H., 325
Patridge, S. M., 88
Patterson, J. A., 224
Patterson, J. M., 169, 198, 242, 310, 415
Patterson, W. I., 120
Patton, M. B., 252, 397, 403, 404
Patton, R. A., 319
Patton, R. L., 309
Pauling, L., 87
Pauls, F., 135, 148, 165
Paulson, R. A., 651
Paveck, P. L., 122, 125
Pearlman, W. H., 295, 296
Pearson, C. S., 404
Pearson, P., 315
Peat, S., 212, 217, 218
Peck, R. L., 33, 175, 233, 236, 459, 556
Peck, S. M., 12

Peck, V. G., 596
Pedelty, W. H., 161, 165
Pedersen, H., 339
Pedersen, K. O., 93, 94, 97, 107, 618
Pedlow, J. T., 543
Pehl, B., 377, 381, 384
Pelczar, M. J., 555, 556
Pena, J. G., 370
Pencharz, R. I., 288
Pennington, D., 313, 320, 330, 331, 334, 553
Pennington, D. M., 553, 556
Pepkowitz, L. P., 653
Percival, E. G. V., 218
Perilstein, W. L., 127
Perlman, G. E., 276
Perlman, H., 197
Perlman, I., 1, 171, 275, 282
Perlstein, D., 455, 456, 458
Perlzweig, W. A., 14, 311, 327, 328
Perquin, L. H. C., 537
Perry, L. H., 486
Perutz, M. F., 95, 96, 426
Perwozwansky, W. W., 568
Petering, H. G., 476
Petermann, M. L., 28, 88
Peters, C. F., 115
Peters, F., 556
Peters, O., 226
Peterson, R. E., 554
Peterson, W. H., 308, 334, 336, 337, 450, 551, 553, 554, 556, 557, 567, 572
Peterson, W. J., 252
Petroff, S. A., 456
Pett, L. B., 164, 368, 415
Pfankuch, E., 599, 600, 602, 619, 620, 621, 626, 627
Pfeiffer, G. H., 206
Pfeilsticker, K., 432
Pfiffner, J. J., 45, 293
Pfund, M. C., 259
Phatak, N. M., 465
Phelps, F. P., 206
Phillips, A. M., Jr., 309, 317, 337
Phillips, G. E., 237
Phillips, H., 86, 87, 115
Phillips, R. L., 563
Phillips, P. H., 263, 274, 367
Phillis, E., 507, 509, 517
Philpot, J. St. L., 35
Pickels, E. G., 478, 616, 622
Picken, L. E. R., 205
Picken, R. M., 465
Pictet, A., 216
Piekarski, G., 597
Pierce, H. B., 135
Pierce, J. S., 463
Piersma, H. D., 82
Pigman, W. W., 206
Pilgrim, F. J., 16, 144, 314, 329
Pillemer, L., 89
Pincock, A. C., 431
Pincus, G., 295, 296
Piper, C. S., 525
Pirie, A., 631
Pirie, N. W., 93, 616, 618, 628
Pirson, A., 476, 553
Pischinger, A., 240
Pitcher, W. H., 214
Pittman, M. S., 252, 397, 403, 404
Pitz, W., 183
Plankenhorne, E., 219
Platt, A. P., 200
Platt, B. S., 440
Plattner, P. A., 234
Platz, B. R., 162, 166, 311, 322, 330, 333, 383
Plentl, A. A., 292
Pletcher, D. E., 220
Plimmer, R. H. A., 82
Plum, P., 385, 386
Pochon, J., 568
Poe, C. F., 650
Pohl, J. F., 377
Polevitsky, K., 597, 598
Poling, E. C., 318, 335
Pollack, M. A., 306, 315, 318, 319, 324, 325, 327, 328, 334, 335, 337, 553, 556
Pollak, L., 252
Pollock, M. R., 566
Polskin, L. J., 164, 366
Polyakova, O., 206
Pommerenke, W. T., 258
Ponder, E., 430
Pondman, A. B. F. A., 572
Poo, L. J., 185, 186
Popper, E., 406
Popper, H., 310, 311, 367, 369, 370, 441
Popper, H. L., 170
Porter, C. W., 453
Porter, J. R., 555, 556
Posternak, T., 213
Pothmann, A., 117
Potter, R. L., 128, 165, 170
Potter, V. R., 10, 14, 16, 18, 440
Potts, A. M., 83, 291
Pourbaix, Y., 317
Powell, G., 274
Powell, H. M., 563
Powell, J. F., 258
Powell, R. C., 151
Power, J. T., 224
Power, M. H., 141
Powers, J. M., 296
Prater, A. N., 642, 653
Pratt, R., 553
Pravdina, L. I., 266
Prebus, A., 589, 597, 603
Preisler, P. W., 214
Preobrazhenskaya, P. K., 464
Preston, W. S., 128
Prévot, A. R., 572
Prevot, P., 498
Price, W. C., 631
Prichard, W. W., 378
Prickett, C. O., 255
Prins, D. A., 294
Prinzmetal, M., 293
Pritchard, H., 354, 362
Proffitt, M. J., 206
Prokhorova, G. N., 339
Prutting, J. M., 465
Puck, T. T., 480, 483, 484, 489
Pulver, R., 1, 575
Purrmann, R., 441
Purves, C. B., 205, 206, 225
Putzeys, P., 110
Pyl, G., 599

Q

Quackenbush, F. W., 159, 161, 162, 164, 166, 311, 322, 330, 333, 358, 368, 383
Quarles, E., 315, 327
Quastel, J. H., 15, 20, 174, 321, 449, 557
Quense, J. A., 650
Quick, A. J., 385

R

Raasch, M. S., 466
Rabaté, J., 223
Rachele, J. R., 639
Racker, E., 617
Radley, J. A., 206
Raffy, A., 556

Rahn, O., 546
Raistrick, H., 538, 563
Raiziss, G. W., 450
Rakoff, A. E., 283, 295
Ralli, E. P., 311, 406
Ramachandran, B. V., 82
Ramasarma, C. B., 359
Rambacher, P., 37
Ramberg, L., 652
Ramo, S., 589, 593
Ramsdell, P. A., 116
Randall, F. E., 556
Randall, L. M., 141
Randall, M., 487, 489
Ranson, S. W., 166
Rantz, L. A., 450
Rapkine, L., 18
Rasmussen, E., 159
Ratner, S., 186, 187, 194, 195
Ravazzoni, C., 237
Rawson, R. W., 288
Ray, J. N., 465
Razim, W. W., 649
Recknagel, A., 610
Record, B. R., 100, 104
Record, P. R., 310, 311, 326
Reddy, D. V. S., 339
Redemann, C. E. 274, 275
Reed, G., 84, 116
Reed, H. S., 523, 524
Regna, P. P., 225
Rehfuss, M. E., 163
Reich, H., 294
Reichel, M., 238
Reichenberg, A., 167
Reichert, F. L., 168, 245
Reichstein, T., 61, 62, 294
Reid, A., 360
Reid, E. E., 294
Reid, M. E., 518
Reimers, F., 646
Reindel, F., 62
Reinecke, E. P., 275
Reinecke, R. M., 145, 146, 147, 166
Reiner, L., 278, 543
Reinhold, J. G., 54
Reinstein, H., 240, 243
Reiser, R., 157
Reiss, M., 283, 284
Reiss, W., 652
Reisse, P., 40
Reman, G. H., 480, 488
Remington, J. W., 292
Remmert, L. F., 139, 192
Renfrow, W. B., Jr., 372
Rennkamp, F., 237, 238, 246
Reynolds, D. D., 219, 223
Rheinboldt, H., 51
Rhoades, H. E., 573
Rhoads, C. P., 18, 296, 318, 370
Rhodes, A. J., 615
Ri, H., 323
Ribas, L., 466
Rice, K. K., 149
Richards, A. G., Jr., 595, 605, 606
Richards, A. N., 432
Richards, G. V., 165, 330
Richards, T. W., 640
Richardson, G. M., 530
Richardson, J. E., 411
Richardson, J. S., 278
Richardson, K. C., 432
Richardson, L. R., 311, 330, 333, 334, 337
Richdorf, L. F., 386
Richter, C. P., 149
Richter, W., 215
Richtmyer, N. K., 216, 225
Rickard, E. R., 619
Riddle, O., 282, 283
Ridout, J. H., 200
Rieke, F. F., 476
Rieman, W., III, 653, 654
Rigs, D. S., 274
Riker, A. J., 556, 567
Riley, D. E., 96
Rimington, C., 82, 430, 432, 433, 434, 436, 437, 647
Ringel, S. J., 85, 118, 119
Ringier, B. H., 373
Ringk, W. F., 462
Ringrose, R. C., 253
Rippel, A., 530, 537, 546
Rissel, E., 266
Rittenberg, D., 6, 19, 61, 121, 171, 175, 186, 187, 190, 194, 195, 235, 529
Ritter, G. J., 205, 206, 572
Ritzmann, J. R., 57
Rivers, T. M., 615, 616, 619, 622, 623, 627, 629, 630, 631
Roach, W. A., 522
Robbins, B. H., 464
Robbins, R. C., 414
Robbins, W. J., 309, 338, 555
Roberts, E., 251
Roberts, K. C., 55
Roberts, L. J., 339, 406, 411
Roberts, R. M., 27, 28, 35, 36
Roberts, V. M., 339, 411
Robertson, G. J., 218
Robertson, W. v. B., 319, 325
Robeson, C. D., 353, 357, 359, 363, 373, 381
Robinson, A., 257
Robinson, C. S., 158
Robinson, F. A., 316, 328, 331, 358, 454, 561, 651
Robinson, R., 294
Robinson, W. L., 245
Robison, R., 185, 186
Roblin, R. O., Jr., 449, 452, 453, 562
Robscheit-Robbins, F. S., 259, 262, 431
Robson, J. M., 288, 294
Rockwell, G. E., 530
Rodden, C. J., 648, 651, 652
Roe, J. H., 323, 338
Roets, G. C. S., 430, 433
Rohmann, C., 463
Rohrbaugh, L. M., 508
Rohrmann, E., 61
Romans, R. G., 277
Root, H. F., 145
Rose, C. L., 465
Rose, C. S., 334
Rose, H. M., 452, 453, 454, 561
Rose, M. S., 401
Rose, W. C., 123, 124, 139, 190, 194
Rosebury, F., 645
Rosenbaum, I., 141
Rosenberg, H. R., 370
Rosenberg, S., 166
Rosenbloom, A. B., 58
Rosenblum, L. A., 333
Rosenfeld, M., 290
Rosenheim, O., 159
Rosenthal, O., 21
Ross, A. F., 116, 119, 621
Ross, F., 83
Ross, J. F., 127
Ross, V., 89
Ross, W. F., 33, 34, 35, 36
Rossen, R., 167
Rostovskaya, Y. V., 338
Rothen, A., 83, 88, 106, 284, 287, 290, 291
Rotmistrov, M. N., 568
Roughton, F. J. W., 10, 427, 529
Roulet, F., 128
Roushdi, I. M., 294
Routh, J. I., 125
Rowland, S. W., 206

Rowlands, I. W., 288
Royce, H. D., 380
Royer, G. L., 653
Rubbo, S. D., 449, 450, 454, 460, 462, 554, 561
Ruben, S., 11, 479, 486, 487, 488, 532, 537, 543, 545, 546
Rubin, J., 6
Rudenberg, R., 588
Rudolfs, W., 566
Rudolph, G. G., 193
Ruess, H., 646
Ruggles, J. G., 370
Ruigh, W. L., 55, 58, 370
Rundle, R. E., 568
Runnstrom, J., 19
Ruoff, N., 372
Rupel, I. W., 367
Rusakova, G. S., 565
Rusch, H. P., 442
Ruska, E., 588, 589, 591, 592, 593, 594, 596, 597, 599, 608, 626, 627
Ruska, H., 594, 595, 596, 597, 599, 600, 601, 603, 605, 607, 608, 626, 627
Rusoff, I. I., 158, 163
Rusoff, L. L., 261, 366
Russell, J. A., 145, 146
Russell, M. A., 157, 163, 167
Russell, R. A., 311, 312, 331
Russell, W. C., 164, 366
Rutherford, E., 252, 403, 405
Ruzicka, L., 59, 234
Rydeen, J. O., 367, 368
Rydin, A., 50
Rynbergen, H. J., 145

S

Säberg, I., 160
Sabin, B., 465
Sachs, B., 145
Sackville, J. P., 262
Saga, K., 383
Sagromsky, H., 475
Sahyun, M., 276
Saidel, L. J., 85
Saier, E., 137
Sakami, W., 84
Sakurai, R., 46
Salaman, M. H., 630
Salk, J. E., 619
Salmon, C. S., 455
Salmon, W. D., 255
Salomon, A. K., 5
Salomon, H., 373
Salomon, K., 433, 440
Salsbury, J. M., 463
Salter, W. T., 274, 275
Sampson, W. L., 165
Samsel, E. P., 654
Samuels, L. T., 136, 146, 147, 148, 166
Sandels, M. R., 407
Sanders, M., 631
Sandiford, I., 183, 185, 187
Sandiford, K., 183, 185, 187
Sandstrom, W. M., 30
Sanigar, E. B., 106
Santa, N., 338
Sapeika, N. S., 561
Sapirstein, L. A., 291
Sapp, A. C., 225
Sappington, T. S., 274
Sarasin, J., 216
Sarett, H. P., 311, 327, 328
Sargent, M. C., 474
Sarma, P. S., 309
Sasaki, T., 49, 50
Sassaman, H. L., 360
Sastry, P. B., 339
Satterfield, G. H., 327, 406
Satterthwaite, F. E., 367
Sattler, L., 223
Saunders, B. C., 86
Saunders, F., 559
Saunders, J. B., 206
Sawhill, J., 333
Sawlewicz, J., 61, 62
Sayers, G., 141
Sborov, V., 437, 438
Scales, F. M., 455
Scarisbrick, R., 487
Schachman, H. K., 111
Schachner, H., 1, 171, 243
Schaefer, A. E., 129, 170 327, 333, 337, 340
Schaeffer, M., 618
Schaible, P. J., 251
Schain, P., 456
Schales, O., 111, 292, 653
Schamp, J. R., 463
Scheer, B. T., 442
Scheinman, L., 377
Schenck, F., 370
Schenck, J. R., 198, 242
Schenck, M., 45, 46
Scherago, M., 88
Scherrer, I., 54
Scheurle, B., 463
Schick, B., 372
Schiebold, E., 605
Schiff, L. I., 590, 592, 594
Schild, H. O., 432
Schimke, O., 39
Schlenk, F., 13, 328, 338, 555, 556
Schlenker, F. S., 499, 502
Schmelkes, F. C., 449, 452, 453, 454, 561
Schmidlin, J., 651
Schmidt, C., 368
Schmidt, C. L. A., 115, 120, 183, 186, 187, 188, 191, 193, 195, 255, 257
Schmidt, G., 241
Schmidt, J. L., 334
Schmidt, L. H., 50, 564
Schmidt, O. T., 211, 212, 223
Schmitt, F. O., 603
Schneberger, E., 324
Schneck, J. R., 125
Schneider, A., 218
Schneider, A. K., 233
Schneider, F., 38, 650
Schneider, M., 118
Schneider, W. C., 14
Schnitker, M. A., 450
Schnorr, H., 216
Schöbel, A., 37
Schoenbach, E. B., 630
Schoenborn, H. W., 554
Schoenemann, K., 221
Schoenheimer, R., 45, 54, 159, 183, 186, 187, 188, 194, 195
Scholander, P. F., 653, 654
Schönberg, A., 294
Schönbrunner, J., 566
Schopfer, W. H., 552
Schöpp, K., 358
Schrader, G. A., 255
Schramm, G., 566, 599, 632
Schreiber, R. S., 221
Schröder, C. G., 442
Schroeder, R. A., 504, 505
Schroeder, W. A., 361
Schroeder van der Kolk, Y. L. C., 644
Schteingart, M., 338
Schuck, C., 265
Schuette, H. A., 327
Schulemann, W. K., 448
Schulman, J. H., 157
Schultz, A. S., 323, 553
Schultz, F. H., Jr., 466
Schultz, F. M., 252
Schultz, J., 116
Schultze, M. O., 259, 433

Schumann, E., 245
Schwartz, S., 437, 438
Schweitzer, T. R., 459
Schwenk, E., 563
Schwerdt, C. E., 617
Schwerin, P., 234
Schwimmer, S., 32
Sciarra, D., 365, 368
Scott, D. A., 277, 278
Scott, D. B. M., 145
Scott, E. M., 30
Scott, E. W., 649
Scott, G. H., 604, 609
Scott, J. R., 322
Scott, M. L., 556
Scott, W. A., 417
Scoular, F. I., 265
Scudder, J., 103
Scudi, J. V., 167, 170, 330, 333, 375, 385
Sealock, R. R., 159, 291
Searle, D. S., 543
Sebesta, E. E., 334, 337
Sebrell, W. H., 126, 168, 200, 243, 310, 313, 322, 323, 335, 418, 556
Secher, K., 142
Sedirak, F. A., 188
Seegers, W. H., 98
Seevers, M. H., 462
Segaloff, A., 295
Seibert, F. B., 100, 103, 107
Seibert, W., 45, 46, 54
Seidlin, S. M., 288, 289
Seiferle, E. J., 642
Seitz, W., 186
Selezeneva, A. A., 339
Seligson, D., 126, 168
Sell, H. M., 211
Sellers, A. L., 654
Sellmann, R., 556
Sells, R. L., 387
Selye, H., 289, 295, 296
Selzer, L., 21
Sen, K. C., 367
Sendroy, J., Jr., 257
Sergievskaya, S. I., 464
Seshan, P. A., 365, 367
Sevag, M. G., 111, 440, 561, 574
Severac, M., 450
Severinghaus, A. E., 282
Seymour, W. B., 283
Shabica, A. C., 57, 58
Shaefer, V. J., 596
Shafer, J., Jr., 478
Shaffer, C. B., 149
Shaffer, P. A., 450
Shamleffer, V. J., 561
Shank, R. E., 442
Shantz, E. M., 362, 363, 364
Sharp, D. G., 94, 101, 111, 239, 615, 616, 617, 618, 624, 629, 633
Sharp, G. O., 139, 172
Shaw, J. C., 151, 174
Shaw, J. H., 263
Shead, A. C., 644
Shearer, G. D., 260
Shedlovsky, T., 100, 102, 103, 284, 287, 616, 622, 627, 629
Sheehan, J. T., 224
Sheets, O., 258
Sheets, R. F., Jr., 368
Shelburne, M., 440, 561, 574
Shelesnyak, M. C., 295
Shepard, H. R., 499, 500
Shepherd, R. G., 453
Sherman, H., 165
Sherman, H. C., 253, 259, 404, 410, 414
Sherman, J. M., 567, 568, 573
Sherman, M. S., 524
Sherman, W. C., 164, 358
Shettles, L. B., 386
Shields, J. B., 252
Shimada, T., 47, 53
Shimizu, T., 48, 62
Shinn, L. A., 85, 225, 276
Shinners, B. M., 339
Shinowara, G. Y., 385
Shipley, R. A., 172, 174, 185, 189, 280, 283, 284
Shive, J. W., 511, 513, 653
Shmigelsky, I., 386
Shohl, A. T., 255, 257, 371
Shonle, H. A., 645
Shope, R. E., 633
Shoppee, C. W., 45, 205
Shorr, E., 143
Short, C. E., 563
Shrewsbury, C. L., 160, 165, 265
Shriner, R. L., 464
Shukers, C. F., 252
Shull, G. M., 334, 556
Shwachman, H., 338
Sibert, A. S., 141
Siegel, L., 327
Sienz, M., 265
Sieve, B. F., 336
Sievers, R. F., 463
Siggia, S., 653
Sihn, T. S., 46, 47, 49, 50
Silber, R. H., 326, 330, 556
Silbowitz, R., 167
Silverman, M., 570
Simmonds, S., 125, 183, 198, 242
Simmons, R. W., 442
Simonis, W., 475
Simpson, M. E., 125, 280, 281, 282, 283, 284, 285, 286, 287, 288
Sinclair, R. A., 175
Sinclair, R. D., 262
Sinclair, R. G., 170, 239, 240
Singal, S. A., 126, 334
Sinnhuber, R. O., 139
Sinton, J. A., 442
Sisson, W. A., 206
Sizer, I. W., 19
Sjollema, B., 254
Skavinski, E. R., 652, 653
Skinner, C. E., 120
Skinner, H. E., 366
Sklovskaya, O. S., 28
Sklow, J., 13, 288, 295
Skrimshire, W. F., 563
Slade, H. D., 533, 534, 535, 536, 571
Slater, I., 146
Slotin, L., 15, 194, 529, 539, 541, 542, 544
Slotta, K. H., 56
Sloviter, H. A., 654
Smadel, J. E., 167, 616, 619, 622, 623, 626, 627, 629, 630, 631
Small, P. A., 35
Smedley-MacLean, I., 161, 234
Smelser, G. K., 282
Smiles, J., 432
Smiley, K. L., 567, 573
Smith, A. M., 83, 120
Smith, B. F., 408
Smith, D. I., 157
Smith, E. C., 476
Smith, E. L., 358, 370
Smith, E. L., 39, 478
Smith, E. R. B., 86
Smith, F., 217
Smith, G., 563
Smith, G. F., 653
Smith, H. P., 98, 385
Smith, J. H., 486
Smith, J. M., 402
Smith, L. D., 563
Smith, L. I., 372, 649
Smith, P. A., 568
Smith, P. H., 367

Smith, P. K., 86
Smith, R. N., 654
Smith, S. E., 367
Smith, S. G., 311, 319, 324, 325, 330, 433
Smith, T., 529
Smithe, C. V., 119
Smolens, J., 111
Smull, K., 126
Smyth, D. H., 540, 546, 559
Smythe, C. V., 10, 122, 123, 192, 338, 543, 630
Snapp, E., 54
Snell, A. M., 434, 435
Snell, E. E., 125, 306, 315, 316, 324, 327, 328, 332, 334, 335, 336, 337, 338, 454, 553, 555, 556, 559, 561, 562
Snider, G. G., 158, 160, 162
Snieszko, S. F., 562
Snyder, C. F., 206
Snyder, H. R., 115
Snyder, J. C., 555
Sobel, A. E., 54
Sobotka, H., 12, 45, 50, 51, 52, 58
Söhngen, N. L., 529
Solomon, A. K., 138, 144, 533, 534, 543, 547, 574
Somers, I. I., 511, 513
Somogyi, M., 149, 150, 151, 172, 173, 567
Sörenson, M. H., 93, 94
Sorkin, M., 62
Sortomme, C. L., 318, 553, 556
Soskin, S., 145, 146, 147
Sotier, A. L., 556
Soutar, T. H., 218
Sowden, J. C., 205, 237
Sozzi, J. A., 651
Spangler, J. M., 318
Speck, M. I., 569
Spellberg, M. A., 168, 169
Spencer, E. L., 509, 563
Spencer, E. Y., 211
Sperling, G., 263
Sperry, W. M., 171, 241, 654
Spiegel-Adolf, M., 88
Spielman, M. A., 58, 233
Spies, T. D., 338
Spillane, L. J., 372, 649
Spilman, F., 327
Spink, W. W., 450
Spitzer, E. H., 262
Spoehr, H. A., 474
Spoerri, P. E., 462
Spoor, H. J., 282
Spratling, F. R., 37
Sprince, H., 630
Spring, F. S., 57
Sprissler, G. P., 35, 37
Sprunt, D. H., 200
Spurlin, H. M., 206
Spyker, M. A., 141
Sreenivasaya, M., 309
Stacey, G. J., 86
Stacey, M., 88, 567
Stadie, W. C., 20, 427
Stadler, J., 564
Stahl, G. W., 566
Stähler, F., 377, 381, 384
Stahly, G. L., 570
Stainer, R. Y., 562
Stälfelt, M. G., 474
Stalker, W. W., 148
Ställberg, S., 233
Stamm, G., 84
Stamp, T. C., 450
Standfast, G. E. H., 563
Stanford, H. N., 386
Stanier, R. Y., 567, 568
Stanley, W. M., 97, 509, 594, 599, 600, 601, 608, 615, 618, 619, 620, 621, 622, 623, 624, 625, 626, 632
Stark, C. N., 569
Stark, I. E., 138, 174, 567
Starke, A. C., Jr., 463
Starkey, W. F., 137
Starr, M. P., 640
Stauffer, J. F., 476
Staveley, H. E., 60, 107
Stead, E. A., Jr., 653
Steadman, L. G., 367
Stearn, A. E., 456, 458
Stearn, E. W., 456, 458
Stearns, G., 252, 404
Steenbock, H., 159, 161, 162, 164, 166, 311, 322, 330, 333, 357, 358, 368, 369, 376, 383
Steggerda, F. R., 403
Stegmann, G., 553
Steiger, M., 62
Steigmann, F., 367, 369, 370
Stein, H. J., 330, 333, 387
Stein, L., 141
Stein, M. H., 142, 409
Stein, W. H., 84
Steinbach, H. B., 15
Steinberg, C. L., 377
Steinberg, R. A., 523
Steinert, B., 474
Steinhardt, J., 29, 35, 110
Steinman, H. G., 12
Stekol, J. A., 121
Stellar, L. J., 273
Stelten, D., 124, 126
Stempel, G. H., Jr., 208
Stenhagen, E., 97, 233
Stenhouse, M., 327
Stephenson, M., 5, 571
Stern, K. G., 7, 239, 280
Stern, M., 144
Sterne, G. D., 288
Sternfeld, L., 145
Stetten, D., Jr., 169, 170, 190, 191, 193, 197, 198, 199, 200, 236, 242, 310
Steven, D., 367, 406, 407
Stevens, C. M., 119
Stevens, N. E., 335
Stevenson, A. C., 293
Stevenson, E. S., 121
Steward, F. C., 498
Stewart, C. P., 338, 407
Stewart, H. C., 157
Stewart, W. C., 170
Stiebeling, H. K., 418
Stier, T. J. B., 574
Still, E. U., 320
Still, J. L., 569, 570
Stillman, N. C., 170, 243
Stinger, D., 170
Stock, A. H., 106
Stock, C. C., 618
Stockholm, M., 136
Stoddard, M. P., 86
Stodola, F. H., 294
Stokes, J. L., 82, 562
Stokstad, E. L. R., 555
Stone, R. W., 564
Stone, S., 377
Storvick, C. A., 411
Stotz, E., 14, 143, 144, 322, 339
Stout, A. K., 553, 556
Stout, P. R., 525
Stoves, J. L., 119
Strain, H. H., 40, 175, 219, 651
Straka, R. P., 653
Strakosch, E. A., 453, 562
Strandskov, F. B., 449, 452, 453, 561
Straumfjord, J. V., 370
Strauss, H., 214
Street, H. R., 251
Strong, F. M., 327, 553, 556
Struck, H. C., 368
Struve, W. S., 210
Stuart, L. S., 239, 563

Stubbe, H., 620, 621
Studer, S., 294
Stumpf, P. K., 137, 138, 567
Sturger, D., 174
Sturgis, C. C., 441
Sturm, A., 117
Subrahmanyan, V., 570
Sugiura, K., 318
Sugiyama, G., 45, 47, 62
Sulkowitch, H. W., 371
Sullivan, M., 330, 334
Sullivan, M. X., 83, 85, 116, 117, 118, 119, 120, 124, 128, 191
Sullmann, H., 19
Sulman, F., 288
Sumner, J. B., 8
Sumner, R. J., 19, 175, 241
Sunderlin, R., 650
Supplee, G. C., 311, 314, 326, 329, 330, 441
Sure, B., 124, 159, 311, 322
Sutermeister, M., 530
Sutherland, E. W., 137, 567
Svedberg, T., 97
Svensson, H., 89, 100, 101, 102, 110
Swami, B. G. L., 309
Swaminathan, M., 325, 332
Swank, R. L., 319
Swanson, M., 169
Sweet, L. K., 386
Swendseid, M. E., 20, 172
Swift, R. W., 311, 314
Swingle, K. F., 13, 314, 326
Sydenstricker, V. P., 334, 418
Sykes, G., 563
Sykes, J. F., 256
Sylvestre, J. E., 415
Symons, P., 647
Synge, R. L. M., 82, 84, 364
Széki, T., 221
Szent-Györgyi, A., 378, 546

T

Tabenkin, B., 225, 568
Tadokara, T., 339
Tagnon, H. J., 385
Taha, S. M., 572
Tainter, M. L., 463
Takagi, K., 383
Takahasi, K., 46, 47, 53
Takeda, Y., 567
Takeuchi, N., 47
Talley, P. J., 510
Tanaka, K., 338
Tanasescu, T., 224
Tang, F. F., 625
Tankó, B., 570
Tannich, R. E., 654
Tanno, T., 224
Tarr, H. L. A., 20
Tarver, H., 115, 120, 183, 186, 187, 188, 191, 193
Tasman, A., 572
Tatum, E. L., 309, 320, 337, 554
Taurog, A., 1, 171
Tavenner, R. W. H., 338
Taylor, A., 306, 313, 315, 316, 318, 319, 320, 324, 325, 327, 328, 330, 331, 334, 335, 337, 553, 556
Taylor, A. E., 381
Taylor, A. R., 111, 239, 615, 616, 617, 618, 624, 629, 633
Taylor, C. V., 309, 338, 554
Taylor, D. L., 520
Taylor, E. S., 386
Taylor, F. A., 354
Taylor, F. H. L., 385
Taylor, H. L., 100
Taylor, J., 306, 309, 324, 327, 328, 334, 335, 337, 553, 556
Taylor, J. D., 169, 243, 373, 375
Taylor, J. F., 10, 427, 428
Taylor, M. W., 164, 366
Taylor, R. J., 364
Taylor, W. H., 653
Teague, D. M., 84, 116, 124
Teague, P. C., 16, 329, 559
Teeters, W. O., 464
Tenenberg, D. J., 453, 562
Teply, L. J., 327
Tepperman, J., 166
Terroine, E. F., 183
Terry, D. E., 325, 326, 556
Teschen, H., 566
Tetrault, P. A., 459
Tewkesbury, L. B., Jr., 275
Thacker, E. J., 257
Thacker, J., 313, 320, 330, 331, 553, 556
Thannhauser, S. J., 238, 240, 241, 243
Thayer, S. A., 293
Theiler, M., 618
Theorell, H., 7, 8, 10, 440
Thivolle, J., 553
Thomas, D. G., 294
Thomas, D. S., Jr., 654
Thomas, J. E., 163
Thomas, J. M., 327, 465
Thomas, J. O., 543, 546
Thomas, L. E., 33, 40, 278
Thomas, R. M., 255, 256
Thomen, L. F., 36
Thompson, J. G., 265
Thompson, R. C., 306, 312, 319, 324, 328, 334, 335, 337, 553, 556, 557
Thompson, S. Y., 360
Thomson, J. W., 9
Thornton, M. H., 54
Thorp, W. T. S., 263
Tidwell, H. C., 142
Tilden, E. B., 568
Timonin, M. I., 563
Tinsley, J. E., 206
Tischler, M., 82, 562
Tisdall, F. F., 417
Tiselius, A., 27, 28, 84, 98, 101, 102, 104, 107, 110
Tiukow, D., 537, 538
Todhunter, E. N., 414
Toennies, G., 84, 117, 119, 251
Toepfer, E. W., 404
Tolksdorf, S., 282, 285
Tolle, C. D., 162, 333, 371
Tolstoouhov, A. V., 452, 453
Tomarelli, R., 334
Tomaszewski, W., 368
Tompkins, E. R., 653
Tompsett, S. L., 258
Tono, P., 569
Tool, A. Q., 206
Torpova, G. P., 14
Towle, J. L., 206
Town, B. W., 83, 84
Tracy, A. H., 34, 35, 36
Trager, W., 309, 335
Treadwell, C. R., 126, 142, 169, 200
Treffers, H. P., 186
Tréfouël, J., 561
Treibs, W., 234
Treichler, R., 367
Trelease, S. F., 524, 525
Trenner, N. R., 82
Trier, E., 339

Trim, A. R., 572, 573
Tristram, G. R., 83
Troescher-Elam, E., 308, 337
Trowell, O. A., 194, 195, 196
Truax, F. L., 169, 243
Trufanov, A. V., 16
Trurnit, H., 599
Tschesche, R., 441
Tsibakova, E. T., 1
Tsiperovich, A. S., 40
Tsuchiya, H. M., 453, 562
Tuerkischer, E., 140
Tul'chinskaya, K. Z., 338, 339
Tullar, B. F., 59
Tunison, A. V., 309, 317, 337
Turba, F., 84
Turchini, J., 433
Turkevich, J., 564
Turner, C. W., 275, 282
Turner, K. B., 168
Turner, J. C., 166
Turner, R. B., 33
Tuttle, L. C., 4
Tyler, C., 253
Tytell, A. A., 573

U

Uber, F. M., 32
Ulanova, M. N., 338
Ulrich, A., 498, 501, 516, 522
Umbreit, W. W., 1, 564, 568, 597, 599
Underhill, S. W. F., 358
Underkofler, L. A., 336, 555, 572
Underwood, E. J., 251, 260
Ungnade, H. E., 378
Unna, K., 165, 310, 326, 328, 330
Usteri, E., 13
Utter, M. F., 569

V

Vahlquist, B., 437
Vahlteich, E. M., 401
Valatin, T., 217
Valentine, F. R., Jr., 57
Valko, E. I., 206, 458, 459
Van Bruggen, J. T., 293
Vance, A. W., 589, 592
Van Dellen, T. R., 253
Vandenbelt, J. M., 332, 385
Van Den Ende, M., 89
Van der Scheer, J., 104, 106
van der Walle, P., 110
Van Duyne, F. O., 404
Van Dyke, H. B., 83, 284, 285, 287, 288, 290, 291
Vanghelovici, M., 51
van Heyningen, W. E., 574, 645
van Kesteren, M., 563
van Lanen, J. M., 553, 557
van Niel, C. B., 6, 485, 487, 489, 543, 545, 546, 552, 558, 567, 574
Van Prohaska, J., 245
van Rooyen, C. E., 615
Vanselow, A. P., 514
Van Slyke, D. D., 41, 83, 84, 86, 185, 654
Van Straten, F. W., 652
van Veen, A. G., 254
van Wagtendonk, W. J., 309, 338, 554
van Weel, P. B., 141
Varga, I., 221
Vars, H. M., 116
Vassel, B., 116, 120
Vaughan, J., 432
Velick, S. F., 51
Vennesland, B., 5, 14, 15, 138, 144, 533, 534, 543, 547, 570, 571, 574
Vercellone, A., 566
Verlin, W. A., 372
Vermeulen, C., 245
Vermeulen, D., 480, 488
Vernon, W. H. J., 651
Verzár, F., 1, 136, 147, 575
Vestling, C. S., 86, 429
Vickery, H. B., 83, 425
Victor, J., 17, 126, 168, 169
Viergiver, E., 376
Viets, F. G., Jr., 497
Vigneaud, V. du, 21, 85, 118, 119, 121, 124, 125, 170, 188, 190, 191, 193, 196, 197, 198, 200, 242, 251, 276, 277, 278, 289, 290, 291, 310, 318, 333, 555
Villaverde, M., 370
Vilter, R. W., 338
Virtue, R. W., 51, 123, 157, 193
Visscher, F. E., 151, 172, 185
Vladesco, R., 118
Vles, J. C., 52
Vock, M., 219
Voegtlin, C., 40
Vogel, H. R., 564
Vogler, K. G., 1, 564
Vold, R. D., 609
Vollmer, H., 372
Vollrath, R. E., 651
Volmer, W., 38
Volwiler, E. H., 463
Vonesch, E. E., 338, 385
Voris, L., 257, 311, 314

W

Wachtel, J., 651
Waddell, J., 357, 376
Wadleigh, C. H., 516, 517
Waelsch, H., 121, 123, 175, 189, 190, 194, 529
Wagner, E. C., 654
Wagner, G. J., 21
Wainio, W. W., 165, 322, 410
Waisbrot, S. W., 209, 210
Waisman, H. A., 164, 260, 314, 328, 332, 336, 337
Wakerlin, G. E., 370
Waksman, S. A., 562, 563
Wald, G., 365, 367, 368, 406, 407
Waldenström, J., 436, 437
Waldman, E., 462
Walker, A. M., 432
Walker, B. S., 11
Walker, H. A., 164, 366
Walker, H. H., 530
Walker, S. A., 387
Walking, A. A., 295
Wallace, E. G., 212
Waller, L., 317, 323, 326
Wallis, E. S., 57
Wallner, L., 605
Walp, L., 510
Walter, H., 573
Walters, W. H., 367, 369
Wang, T., 83, 120
Wang, Y. L., 323, 338
Warburg, O., 5, 10, 11, 19, 449, 476
Ward, G. E., 225, 568
Ward, H. H., 323
Ward, K., 206
Ward, M. V., 258
Ward, S. M., 627, 630, 631
Warner, D. T., 86
Warner, E. D., 98, 385
Warner, R. C., 85
Warnock, G. M., 253

Warren, C. O., 21
Warren, S. L., 275
Warrick, F. B., 138
Warrington, K., 525
Waser, E., 466
Wasserman, P., 277
Wassink, E. C., 478, 480, 483, 488
Wassmann, K., 323
Waters, R. M., 462
Waters, W. A., 205, 206
Watkins, E., 369
Watson, C. J., 435, 437, 438
Watson, H. B., 220
Waugh, D. F., 277
Wawra, C. Z., 17, 111, 340
Wawzonek, S., 372, 378
Weaver, R. H., 88
Webb, J. L., 111, 340, 479
Weber, A. D., 252
Weber, C. J., 293
Webley, D. M., 15, 321, 557
Webster, E. T., 363
Webster, G. T., 168
Webster, T. A., 159
Wecker, G., 10
Wegel, F., 265
Wegner, M. I., 312, 325, 556
Weichelsbaum, T. E., 149, 172
Weil, L., 38, 157, 163, 167
Weil-Malherbe, H., 544
Weinhouse, S., 244
Weisblat, D. I., 209, 210, 219
Weiss, J., 222
Weissberger, L. H., 371, 378, 383
Welch, A. D., 127, 170, 197, 198, 242
Welch, E. A., 169, 243
Welch, M. S., 3
Weller, S., 479, 480, 489
Wells, P. A., 538
Welsch, M., 562
Wendel, W. B., 11, 428
Wendland, R. T., 572
Werch, S. C., 137
Werder, F., 371
Wergin, W., 605
Werkman, C. H., 15, 151, 530, 531, 532, 533, 534, 535, 536, 537, 539, 541, 542, 543, 552, 559, 569, 570, 571, 574
Werle, E., 565
Wertheimer, E., 137, 140, 141
Werthessen, N. T., 296
Wesner, M. M., 56
Wessler, S., 485
West, C. D., 645
West, E. S., 221
West, P. M., 318, 319, 335
West, R. A., 309, 331
Westenbrink, H. G. K., 553
Westerfeld, W. W., 12, 14, 15, 144, 294, 570, 571
Westphal, O., 456, 457
Westphal, W., 218, 219
Wetter, F., 57
Wettstein, A., 56
Weygand, F., 206, 207, 208
Wheatley, A. H. M., 174, 449
Whelpton, R. V., 588, 596
Whiddington, R., 592, 593
Whipple, G. H., 186, 188, 258, 260, 262, 431
Whitby, G. S., 83
White, A., 86, 121, 251, 280, 281, 282, 283
White, A. G. C., 564
White, E. A., 163
White, E. P., 651
White, F. R., 122
White, G. C., 151
White, H. L., 166
White, J., 51, 122
White, J. W., Jr., 365, 648
White, P. R., 567
White, R. L., 411
White, W. H., 654
Whitehead, W., 218
Whitesell, E. B., 649
Whitman, L., 619
Whitman, N. E., 139, 140, 193
Whitmore, W. F., 462, 650
Wick, A. N., 151, 172, 185
Wicks, L. F., 653
Widdowson, E. M., 252, 259, 265
Widmer, W., 234
Wiedemann, G., 266
Wiedemann, O., 566
Wiedling, S., 561
Wiehl, D. G., 402, 419
Wieland, H., 45, 46, 54, 57
Wieland, T., 331
Wieringa, K. T., 535, 540, 572
Wilde, M. O., 252
Wilder, R. M., 319, 325, 397, 408
Wilding, I. G. E., 86
Wiley, A. J., 572
Wilhelms, A., 220
Wilkinson, H., 354, 359, 362
Wilkinson, K. P., 407
Wilkinson, P. A., 55
Wilkinson, P. B., 327
Willcox, J. S., 253
Willerton, E., 328, 329, 556
Williams, D. E., 252
Williams, H. H., 124
Williams, J. W., 104, 105, 274
Williams, P. C., 288
Williams, R. D., 319, 325, 408
Williams, R. J., 16, 306, 307, 308, 309, 315, 316, 317, 319, 320, 321, 324, 325, 327, 328, 329, 331, 332, 334, 335, 337, 338, 552, 553, 556, 559
Williams, R. R., 323, 324, 326, 327, 410, 556
Williamson, M. B., 275
Williamson, R., 162
Williamson, S., 196
Willis, L. H., 463
Willstaedt, H., 362
Willstätter, R., 222
Wilson, D. C., 264
Wilson, D. W., 111, 285, 286
Wilson, E., 294
Wilson, E. J., Jr., 221
Wilson, H. E. C., 185
Wilson, J. B., 5, 6, 19, 335, 555
Wilson, J. L., 456
Wilson, P. W., 5, 6, 19, 335, 555, 574
Wiltgen, V. H., 252
Winans, W. R., 653
Windaus, A., 370
Winkler, H., 384
Winslow, C. E., 530
Winter, I. C., 171
Winterberg, S. H., 265
Winternitz, M. C., 98, 255, 256
Winterstein, H., 449
Wintersteiner, O., 57, 62, 175, 370

Winton, F. R., 432
Wintrobe, M. M., 330, 333
Winzler, R. J., 574
Wirth, J. C., 15, 551
Wirts, C. W., 439
Wisansky, W. A., 337
Wise, E. C., 371
Wishart, F. O., 621, 629
Wishart, M. B., 185
With, T. K., 366
Witt, N. F., 650
Wittbecker, E. L., 58
Wittle, E. L., 56, 59, 61
Witzemann, E. J., 176
Woglom, W. H., 318, 319, 335
Wohl, K., 485, 488
Wokes, F., 323
Wolf, H. J., 441
Wolfe, J. K., 223, 224
Wolfrom, M. L., 205, 209, 210, 212, 219, 220, 224
Wolpers, C., 603
Womack, M., 124
Wonder, D. H., 286, 288
Wong, R., 118
Wood, A. J., 564, 568
Wood, C. A., 650
Wood, E. L., 378
Wood, H. G., 15, 530, 531, 532, 533, 534, 535, 536, 537, 539, 541, 542, 543, 552
Wood, J. L., 121
Wood, T. R., 122
Wood, W. B., Jr., 316, 328, 336, 450, 451, 555, 561, 562
Woodruff, H. B., 562
Woods, A. M., 306, 309, 319, 324, 327, 328, 334, 335, 337, 553, 556
Woods, D. D., 450, 454, 529, 561, 563, 572, 573
Woodside, M. R., 164, 357, 373, 376, 381, 382, 383, 441
Woodward, C. R., 562
Wookey, E., 122
Wooldridge, W. R., 566
Wooley, J. G., 323, 556
Wooley, J. M., 88
Woolley, D. W., 111, 174, 239, 308, 312, 315, 331, 335, 336, 337, 552, 553, 563
Worden, A. N., 433
Worker, G., 54
Worley, L. G., 10
Wortis, H., 142, 144, 409
Wright, E., 331
Wright, G. F., 211
Wright, I. S., 168
Wright, L. D., 124, 149, 306, 316, 328, 329, 331, 334, 335, 337, 553, 556
Wright, M. H., 555
Writhington, M., 145
Wu, H., 428
Wündbichler, V., 38
Wunderlich, W., 370
Wunderly, C. H., 52
Würgler, W., 561
Wyckoff, R. W. G., 104, 106, 616, 624
Wyman, J., Jr., 11, 432
Wyndham, R. A., 437
Wyss, O., 316, 336, 449, 451, 452, 453, 454, 561

Y

Yabuta, T., 224
Yagoda, H., 649
Yakovlev, N. N., 314
Yamasaki, I., 572
Yamasaki, K., 47, 53
Yang, E. F., 428
Yantzi, M. F., 369
Yarbrough, M. E., 406, 407
Ydkin, J., 6
Yenson, M. M., 234
Yorke, W., 563
Yosikawa, K., 224
Yosiki, S., 54, 55
Yositome, W., 572
Youmans, J. B., 399
Young, E. G., 415
Young, F. G., 284
Young, F. G., Jr., 223
Young, H. A., 234
Young, M., 312
Young, N. F., 18, 318
Young, R. M., 556
Young, W. C., 296
Yudkin, J., 165, 322
Yuile, C. L., 432
Yukawa, H., 235
Yurtaev, G. I., 338

Z

Zahl, P. A., 561
Zahn, H., 605
Zahnd, H., 118
Zakomorny, M., 537, 538
Zaky, Y. A., 245
Zapp, J. A., Jr., 20
Zechmeister, L., 54, 361, 651
Zeile, K., 430
Zeiser, H., 211, 212, 223
Zeller, E. A., 16
Zemplén, G., 217
Zerban, F. W., 206, 223
Zerfas, L. G., 9, 440
Zervas, L., 224
Zevin, S., 367, 369
Ziegler, M., 141
Ziff, M., 175, 235
Zilva, S. S., 338
Zimman, C. A., 338
Zitin, B., 10
Zittle, C. A., 10, 116
Zmachinsky, W. C., 410
Znamenskaya, M. P., 33
ZoBell, C. E., 564
Zollinger, R. W., 274
Zondek, B., 13, 288, 295
Zophy, W. H., 209
Zscheile, F. P., 365, 478, 648
Zuazaga, G., 653
Zucker, L., 312
Zucker, T. F., 312
Zverev, V. V., 465
Zworykin, V. K., 589, 592, 596

SUBJECT INDEX

A

Acetic acid, bacterial formation of, 535
Acetoacetic acid, synthesis and breakdown of, 20
Acetone bodies
  metabolism of, 172
  β-oxidation and, 172
Acetonuria, tryptophane and, 193
Acetylcholine, synthesis of, 15
Acetylphosphate, synthesis of, 4
Acid-base balance, 107
Acridine dyes, as bactericides, 460–62
Adrenal cortex, carbohydrate phosphorylation and, 147
Adrenal hormones, 293
Adrenocorticotropic hormone, 282
Albumins, egg
  chymotrypsin digestion of, 34
  composition of, 107
  electrophoretic studies of, 98
  mobility and charge of, 109
Albumins, serum
  content of, 101
  isolation of, 100
  mobility and charge of, 109
  variations of, 92
Alcohol, oxidation of in blood, 144
Aldehydo sugars, diazomethane and, 209
Aldonic acids, preparation of, 225
Aldonyl chlorides, diazomethane and, 210
Aldoses, chlorous acid oxidation of, 225
Algae
  chemosynthesis by, 564
  mineral nutrition of, 553
Algal sterols, 56
Alkoxybenzoic acid derivatives, as anesthetics, 463
Alkylthiobenzoic acid derivatives, as anesthetics, 463
Allantoin, 12
Amadori rearrangement, 206
Amine oxidase, inactivation of, 19
Amines, microbial oxidation of, 565
Amino acid metabolism, 183–204
  sulfur containing, 120
d-Amino acid oxidase, 16
Amino acids, 81–114
  chromatographic separation of, 84
  determination of, 83–85
  immunological specificity of, 620
  microbial decomposition of, 573
  nutrients for bacteria, 556
  phosphate transfer and, 252
  properties of, 86
  sulfur containing, denaturation and, 86
p-Aminobenzoate, antisulfonamide effect of, 561
p-Aminobenzoic acid
  assays of, 336
  growth factor for bacteria, 554
  sulfanilamide and, 315, 450–51
p-Aminobenzoic acid derivatives, as anesthetics, 462
Aminonaphthoic acid derivatives, as anesthetics, 464
Aminopeptidase, 37–38
Aminophthalic acid derivatives, as anesthetics, 463
Amino-sugars, decomposition of, 564
Androgens, depletion of, 384
$\Delta^{1,3,4,5}$-Androstadienol-17-one-3, 63
$\Delta^{5,6}$-Androstenol-3-one-17, 58
$\Delta^{5,6}$-Androstenol-3(β)-one-17 acetate, 61
Anemia, vitamin-B complex and, 317
Anesthetics
  local, 462–66
  see also specific substances
Antibacterial agents, 561–63
  from molds, 563
  surface-active, 455–60
  see also Bactericides *and* specific substances
Antibodies
  pneumococcal, digestion of, 28
  nitrogen replacement in, 186
  preparation of, 106
  serum globulins and, 104
Antitoxins
  diphtheria, 28
  separation of, 105
Arachidonic acid, 161
Arginase
  arginine and, 195
  in liver, 194
Arginine
  arginase and, 195
  hydrolysis of, 573
  in kidney, 544
Arsenocholine, 197
Arthritis, sulfur metabolism and, 128
Ascorbic acid
  algae growth and, 553
  in anaerobic organisms, 556
  assays of, 338, 556
  cathepsin and, 32
  choleglobin formation and, 11
  determination of, 338
  distribution of, 338
    in blood plasma, 411

Ascorbic acid (*cont.*)
enzymatic oxidation of, 12
manganese and, 263
requirement in diet, 410–14
saturation test for, 412
synergy with vitamins, 312, 381–83
tolerance for, 339
in tomato fruit, 518
in vitamin-B complex, 307
Ascorbic acid metabolism, 413
Aspartic acid, in growth, 190
Autolytic proteases, inhibition of, 40

B

Bacteria
assimilatory processes of, 552, 574
cataphoretic mobility of, 561
cell walls of, 598
electrophoretic studies of, 106
morphology of, 596
spectral absorption of, 478
sugar fermentations of, 569, 571
synthesis of vitamin-B complex by, 312
vitamin requirements of, 309, 554
vitamin B_2 assays with, 556
Bacterial flagellae, adsorption on, 601
Bacterial protoplasm, differentiation of, 599
Bactericides, 450–62
electron microscope studies of, 602
mode of action of, 460
permeability and, 459
surface active substances as, 455–60
see also Detergents *and* Antibacterial agents
Bacteriophage
bacterial cell breakdown and, 602
mechanism of growth of, 630
morphology of, 600
structure of, 627
Bacteriostatic agents, 450–62
sulfanilamide as, 454, 561
Benzylidene derivatives, of carbohydrates, 224
Bile
estrone excretion in, 295
liver parenchyma and flow of, 435
Bile acid metabolism, 49–51
Bile acids
analysis of, 53
natural occurrence of, 45–49
physical properties of, 52
Bile pigments, 437–42
intracorpuscular formation of, 439
see also specific pigments
Bilirubin, tests for, 439
Biliverdin, abnormal occurrence of, 439
Biotin, 333–35
assays of, 334, 553, 556
Biotin (*cont.*)
bacteria requirements of, 555
dermatitis and, 313
growth factor of yeast, 552
microbial synthesis of, 555
physiological effects of, 334
procarcinogenic action of, 318
structure of, 333
in tumors, 318
in viruses, 630
Biphenyl derivatives, as anesthetics, 464
Blood coagulation, electron microscope studies of, 603
Blood lipids, 166–68
phospholipids, 244–45
Blood pressure, vitamin-B complex and, 317
Blood sugar
hyperglycemia, 141
pituitary gland and, 145
Blood thyroid hormone, 273
Boron in plants
calcium content and, 511
deficiency of, 524
growth factor of, 525
Brain-potentials, thiamine deficiency and, 319
Brassicasterol, 55
Butyric acid, acetone body production and, 173

C

Calciferol, dental caries and, 372
Calcification, phosphorylase and, 138
Calcium
absorption of, 163, 251
ageing and, 266
availability in foods, 405
deficiency of, 252
fluorine retention and, 262
iron absorption and, 258
magnesium deficiency and, 253
metabolism of, 253
nitrogen metabolism and, 252
in plants
boron content and, 511
light absorption and, 508
requirement of, 252, 403, 405
soil deficiency, 505
in trypsin formation, 32
utilization of, 252
Cancer, vitamin-B complex and, 317–19
Cannizzaro reaction, of carbohydrates, 221–22
Carbamino compounds, formation of, 529
Carbohydrate metabolism, 135–56
alcohol and, 144
glands and, 145
vitamins and, 149

Carbohydrates
aldol-condensation, 220–21
benzoates of, 219
Cannizzaro reaction and, 221–22
carbonates of, 219
chemistry of, 205–32
cyclic acetals of, 224
esters of, 218–20
fat conversion of, 166
fluoro derivatives of, 219
hydrogenation of, 224
orthoacetates of, 219
oxidation of, 225
polyhydroxy alcohols of, 224
propionates of, 219
protein metabolism and, 188
in proteins, 88
sulfates of, 218
thiocyanates of, 219
tolerance of, 142
unsaturation of, 205
Carbon dioxide
assimilation of
in animal tissue, 539
in heterotrophic organisms, 529–50
sulfur oxidation and, 564
bacterial reduction of, 529
cell metabolism and, 529–30
fixation of, 545
growth and, 529, 545
photoreduction of, 5
urea formation and, 194
Carbon monoxide poisoning, 427
Carbonyl, microbial conversion to carbinol, 566
Carboxyhemoglobinemia, 427
Carboxylase
cysteine and, 18
oxaloacetate synthesis and, 558
Carboxypeptidase, 37
Carotene
absorption of, 164, 369
in milk, 441
oxidation of, 19
β-Carotene
extraction of 365
in feces, 365
neo-β-carotene separation from, 365
vitamin A
source of, 358
standard for, 360
Carotenoids, absorption curves for, 475
Cartilage, growth factor of, 192
Casein
composition of, 82
enzymatic digest of, 189
hydrolysate of, 127
Catalase, 9, 440
activity of, in plant tissues, 524
protective action of, 12
Catalase (*cont.*)
virus adsorption of, 630
Cathepsin
activities of, 31–32
in rabbit kidney, 38
Cell metabolism, 529–30
Cells, micrographs of, 597
Cellulose
electron microscope studies of, 605
microbial decomposition of, 568
Cephalin
composition of, 235
inhibitory action of, 239
iodine number of, 235
Cerebrosides
in brain, 245
determination of, 240
isolation of, 238, 245
in spleen, 246
Chitin, 605
Chlorides, in plants, 514
Chlorine, deficiency of, 257
Chlorophyll, absorption curve for, 475
Chlorophyll-protein complex
chemistry of, 478
content of, 239
Chloroplasts
materials distributed in, 478
oxygen production by, 487
Choleglobin
abnormal occurrence of, 439
formation of, 11
Choleic acids, 51
Cholenic acid
3-hydroxy-12-keto-$\Delta^{9:11}$-, 65
3(β)-hydroxy-$\Delta^{5:6}$-, 58
12-keto-$\Delta^{9:11}$-, 65
Cholestadienol-3
$\Delta^{5:6,7:8}$-, 69
$\Delta^{6,8}$-, 69
Cholestadienone-3
$\Delta^{4:5,6:7}$-, 68
$\Delta^{1:2,4:5}$-, 63
ɨ-Cholestanone, 70
Cholestene, 3-hydroxy-4-cisbenzoxy-$\Delta^{5:6}$-, 67
$\Delta^{6:7}$-Cholestenediol-3,5, 66
Cholestenol-3-one-25, nor-(-27)-$\Delta^{4:5}$-, 59
Cholestenone-24, 3-hydroxy-$\Delta^{5:6}$-nor-, 60
Cholesterol, structure of, 58
Cholic acid
determination of, 53
microbial oxidation of, 564
Cholic acid metabolism, 50
Choline
biological assay of, 240
deficiency of
choline content and, 242
vitamin A in liver and, 441
hemorrhage prevention by, 242

Choline (*cont.*)
lipotropic action of, 242
pyruvic acid and coupled oxidation of, 4
transmethylation of, 242
vitamin A and, 311
Choline glycerophosphate, synthesis of, 237
Choline metabolism, 196–200
Chromosomes, electron microscope studies of, 607
Chymopapain
crystallization of, 37
properties of, 30
Chymotrypsin
antigen and, 629
energy of conversion of, 34
properties of, 29
Cinnanic acid derivatives, as anesthetics, 463
Citric acid
formation by mold of, 537
microbial decomposition of, 571
Citrulline, urea formation and, 195
Clionasterol, 57
Cobalt
deficiency of, 262
hemoglobin and, 262
spectrum of proteins of, 263
Cocarboxylase
determination of, 553
in nerve fibre, 15
Coenzymes, bacteria utilization of, 560
Coliphage, purification of, 619
Collagen, electron microscope studies of, 603
Conalbumin, electrophoretic studies of, 98
Connective tissue, electron microscope studies of, 604
Copper
deficiency of
chronic, 260
"falling disease" and, 261
gray hair and, 260
enzyme actions and, 259
metabolism of, 261
occurrence of, 260, 261
in viruses, 630
$\Delta^{8,9}$-Coprostadienol, 69
Coprosterol acetate, 60
Coumarin, diazomethane and, 211
Cozymase
bacteria growth and, 555
formula of, 13
function of, 328
Creatine
choline deficiency and, 242
synthesis of, 544
Creatinine, 183, 187
Cryptosterols, 56
Cysteine
determination of, 116
formation from methionine, 190
hormone purification by, 283
insulin reduction by, 277
radioactive sulfur and, 115
velocity constant of, 36
l-Cysteine, from *dl*-homocysteine, 190
Cystine
cyanide and, 115
determination of, 116
formation from serine, 191
hormone activity and, 291
metabolism of, 122
oxidation of, 117
polarographic studies of, 116
separation of in cystinuria, 191
Cystinuria, 127
amino acids and, 191
separation of cystine in, 191
Cytochrome, 9–10, 440
formation from myoglobin, 432
oxidation of, copper and, 259
see also specific substances
Cytochrome-b_2, properties of, 9, 440
Cytochrome-*c*
determination of, 10
preparation of, 440
in tumors, 10
Cytochrome oxidase, 10
Cytochrome-*c* peroxidase, 8
Cytochrome reductase, 440
Cytoplasm, electron microscope studies of, 602

D

Dark adaptation, 406–7
see also Vitamin A
β-Decarboxylase, 15
Dehydroetiodesoxycholic acid, 62
6-Dehydroprogesterone, 68
6-Dehydrotestosterone benzoate, 68
Dermatitis, biotin and, 313
Desoxycorticosterone acetate, 296
Desulfurase, 122
Detergents
antiseptics and, 456
bacterial metabolism and, 455
mode of action of, 457–60
pH and, 455
preparation of, 456
surface tension and, 458
Diabetis, acetone bodies and, 172
Diamine oxidase, 16
Diatoms
electron microscope studies of, 607
photosynthesis in, 475
Diazomethane, reactions by, 209
Digitalose, 223

Diglycerides, synthesis of, 237
Dihydrotachysterol$_2$, antitetanus effects of, 370
Dihydroxycholanic acid, 12-keto-3, 6-, 49
3, 12-Dihydroxyetiocholanylmethyl ketone, 62
Dihydroxystearic acid, vitamin K and, 165
3′,5′-Diiodothyronine, 274
Diiodotyrosine, 275
11,12-Diketocholanic acid, 64
Dipalmitolecithin, 236
Dipeptidase, 38–39
Diphenylacetic acid derivatives, as anesthetics, 465
Disaccharides, 223
Dystrophy, 164

E

Edestin
  electron microscope studies of, 607
  structure of, 81, 82, 107
Egg white, proteins of, 98
Embryonic development, vitamin-B complex and, 315
Enols, 212–14
Enzymes
  microbial production of, 551, 573
  oxidative inactivation of, 17–19
  proteolytic, 27–44
  reaction velocity constants of, 28, 29, 31
  unclassified, oxidation and, 20–21
  see also specific enzymes
$\Delta^{8:14,\ 22:23}$-Ergostadienol, 55
Erythroblastosis foetalis, biliverdin in, 439
Erythrocytes, virus adsorption of, 619
Estradiol, 64
Estriol, excretion of, 295
Estrogens
  metabolism of, 293
  phospholipids and, 244
  synthesis of, 293
Estrone, 293–95
  vitamin-B complex and, 317
Etioallocholanol-3(β)-one-17, isomeric, 61
Etiobilienic acid, tricyclic 3-hydroxy-$\Delta^{5:6}$-, 60
Etiocholanol-(β)-one-17, 60
Etiocholenic acid, 3(β)-hydroxy-$\Delta^{5:6}$-, 58
Etiodesoxycholic acid, 62

F

Fat metabolism, 157–82
  absorption, 157–58
  chemistry of, 174
  digestion, 158
  enzymes and, 171, 175
Fat metabolism (*cont.*)
  excretion, 158
  oxidation in, 171
  sulfur compounds in, 125
  tissue fat formation, 165
Fats
  absorption of, 165
  antirachitic effect of, 163
  digestibility of, 158
  growth and, 160
  nutrition and, 159, 163
  synthesis of, 166, 322
Fatty acids
  arachidonic acid and, 161
  in blood, 167
  deficiency of, 163
  essential, 161–63
  oxidation of, 19–20
  in phosphatides, 236, 245
  saturated, 233
  unsaturated
    absorption analysis of, 235
    autoxidation of, 234
    derivatives of, 235
    functions of, 163
    isolation of, 233
    synthesis of, 234
  see also specific acids
Fatty livers, pantothenic acid and, 330
Fermentation, inhibition of, 18
Ferretin, in spleen, 11
Fibrinogen, 97
Ficin, 36–37
Flavin enzymes, 15
Flavins, 207
Flavoproteins
  inhibition of, 16
  vitamin-B complex and, 314
Fluorine
  dental caries and, 264
  occurrence of, 265
Folic acid, in vitamin-B complex, 313, 337
Fructose, utilization of, 145
Fucoxanthin, absorption curves for, 475
Fumaric acid
  formation from glucose, 537
  glycerol fermentation and, 532
Fungisterols, 56
Furfural, from enols, 212

G

Galactose, absorption of, 137
l-Galactose, isolation of, 223
Galacturonic acid, 137
Gangliosides, properties of, 245
Gastric lesions, ascorbic acid and, 339
Gentiobiose, synthesis of, 223
Globulins, serum, analysis of, 101
Glucosamine, growth and, 190

Glucose
absorption of, 135
adrenal glands and, 136
thiamin and, 322
acetone body metabolism and, 172
formation of, from amino acids, 139
fermentation in protozoa, 543
oxidation of, 145, 225
phosphorylation, 136
Glucose carbonate, formation in protozoa, 543
Glucose dehydrogenase, notatin as a, 563
Glutamine, urea formation and, 196
Glutathione, metabolism of, 121
Glycerol
bacterial fermentation of, 530
production of, 224
in sphingomyelin, 238
Glycerol carbonate, formation in protozoa, 543
Glycerophosphoric acid, in phosphatides, 236
Glycine, in rabbit, 192
Glycocyamine, methylation of, 199
Glycogen
in adipose tissue, 140
electron microscope studies of, 607
p-iodobenzoyl-, electron microscope studies of, 607
from lactic acid, 144
in liver, 136, 141
acetone bodies and, 173
in muscle, 140
synthesis of, 137–41
enzymatic, 137
in rat liver, 543
vitamin-B complex and, 314
Glycogenalysis, acetone bodies and, 173
Glycogenesis, *see* Glycogen, synthesis of,
Glycols, oxidation of, 225
Glycosides, 206–9
alkaline cleavage of, 214
phenyl, anhydro derivatives of, 216
Gonadotropic hormones, 284
molecular weight of, 111
Gonadotropins, 287
chemical modifications of, 286
chorionic, 285
Gramicidin, 562
composition of, 82
Growth, factors of, drugs and, 562
Growth hormones, from pituitary gland, 283

H

Hair, graying of, 164
Harderian gland, porphyrin from, 433
Hemin, catalase inhibition by, 440
Hemocyanin, electron microscope studies of, 607
Hemoglobin, 96, 402, 425–32
determination of, 429
digestion of, 31, 33
fatty acids autoxidation and, 234
formation of
cobalt and, 262
copper and, 259
pterins and, 441
pyridoxin and, 440
oxidimetric curve of, 10
oxygen dissociation of, 426
radioactive iron and, 258
regeneration of, 431
values, 402
variations of, 93
Hemoglobinuria, 432
Heparin, viruses and, 618
Hesperidin chalcone, in vitamin P, 340
Heterotrophic organisms, carbon dioxide assimilation in, 529–50
Hexestrol, activity of, 294
Hexokinase, glucose conversion by, 137
Histidine metabolism, urocanic acid and, 193
Histozyme, renal, 51
dl-Homocysteine, cysteine from, 190
Homoestradiol, 294
Hormones
chemistry of, 273–304
vitamin-B complex and, 316
see also specific hormones
Hydrocarbons, microbial oxidation of, 564
Hydrogenase, 5–7
Hydrogenation
of carbohydrates, 224
micro-catalytic method for, 642
7-Hydroxycholesterol, 66
Hypertensin, 292
Hypoxanthine, acetic acid from, 535

I

Icterus, test for, 439
Indole, formation of, 565
Influenza, virus, 600, 618, 619, 625, 633
Inositol, 335
assay of, 553
benzene derivatives of, 213
lipotropic action of, 169
occurrence of, 306
reactions of, 213
Inositol phosphatide, in cephalin, 235
Insects
electron microscope studies of, 595, 605, 606
vitamin-B complex and, 309
Insulin, 128, 276
carbohydrate metabolism and, 148
chemical properties of, 276
composition of, 107

Insulin (*cont.*)
derivatives of, 277
enzyme inhibition by, 33
molecular weight of, 111
physiochemical properties of, 277
in plastein formation, 40
thiamin and, 322
Iodine
in pepsin studies, 35
in virus studies, 624
Iron
in anemics, 258
availability of, 258, 259
deficiency of, 402
efficiency of utilization of, 401
flagellate colony formation and, 554
metabolism of, 258
plant growth and, 523
radioactive, methemoglobin studies of, 11
requirement in diet, 397–403
toxicity in plants, magnesium deficiency and, 512
Iron chlorosis, plant growth and, 506
Iron-porphyrins, 7–11
classification of, 7
meso-, 10
Isocholesterol, 69

J

Jaundice, vitamin K and, 387

K

Ketene, lactogenic hormone inactivation with, 281
Keto acids, excretion of, 189
α-Keto acids, decarboxylation of, 3
Ketoaldonic acids, 225
7-Ketocholesterol, 66
7-Ketocholesteryl acetate, 68
α-Ketoglutaric acid, from pyruvic acid, 540
Ketone bodies, carbohydrate metabolism and, 149
Ketonuria
carbohydrate metabolism and, 149
glycogen in liver and, 140
Ketoses, N-substituted, 207
Ketosis
adrenal cortex and, 174
carbohydrate metabolism and, 150
Kidney
lesions of, myoglobin and, 432
serum proteins in diseases of, 103
Kitol, 362

L

Lactate
carbohydrate metabolism and, 142
pyruvate and, 142
Lactic acid
fermentation of, 568
formation of
bacterial, 535, 569
in pigeon liver, 542
glycogen from, 144
Lactic acid bacteria
nucleotides in growth of, 555
pyridoxin requirements of, 557
pyruvate fermentation by, 569
Lactic dehydrogenase, 9
Lactogenic hormone, 279–82
Lactoglobulin, pepsin and, 36
β-Lactoglobulin, composition of, 107
mobility and charge of, 109
properties of, 94
Lactones, diazomethane and, 211
Lanthionine, 85
determination of, 118
from insulin, 278
Lead poisoning, 436
Lecithin, 239
Lecithinase, 240
Lecithovitellin, 238
Leucopterin, 441
Linoleic acid
arachidic acid from, 234
lactation and, 162
vitamin-B complex and, 162
Lipase, 630
Lipids
bacterial metabolism and, 458
micro-extraction of, 641
in vaccinia, 622
Lipins, 233–50
Lipoproteins, 238–39, 240
Lipoxidase, 19, 241
Liver
glycogen content of, 314
riboflavin in, 326
digestion and, 441
pantothenic acid and, 330
vitamin-B complex and, 311
vitamin A in, 441
Liver cirrhosis, 243
Liver enzymes, sulfur reactions of, 192
Liver extract, 241
Liver fats, 168–70
cholesterol and, 171
cystine and, 168, 199
hepatic cirrhosis and, 168
starvation and, 169
Luteol, absorption spectra of, 365

M

Magnesium
deficiency of, 253
growth rate and, 254
photosynthesis and, 480
tetany and, 254

Magnesium (*cont.*)
excess of, 253
requirement of, 254
Malaria pigment, 442
Malic acid, glycerol fermentation and, 532
Malignant tissue
Roux chicken sarcoma I, 239
see also Cancer *and* Tumors
Manganese
deficiency of, 263
excess, 263
iron deficiency in plants and, 512
mode of action of, 263
peptidase complex of, 39
plant growth and, 525
Mannosaccharic acid, diazomethane and, 211
Mercapturic acid, 121
Mercury, effect on bacteria, 458
Mesobilirubinogen, structure of, 438
Mesoporphyrin, mesoporphyrin II in, 442
Metabolic hormones, from pituitary gland, 283
Metabolism
cell permeability and, 574
sulfonamides and, 561
Methemoglobin
in fresh blood, 428
hemoglobin and, system of, 427
of horse, 426
protective action of, 12
reduction of, 11
Methemoglobinemia, toxicity of, 427
Methionine
conversion to cysteine, 190
determination of, 116
metabolism of, 120, 123
dl-Methionine, synthesis of, 115
Methylation
of ethanolamine, 197
of glycocyamine, 199
sulfur compounds and, 125
1-Methylestradiol, 63
Methyl pentoses, determination of, 225
Methyltestosterone, inactivation of, 295
2-Methyl thiazoline, reactivity of, 115
Microchemistry, 639–60
range of, 639
Micromethods
color determinations, 645
crystallography, 642
density determinations, 645
drying of substances, 641
electrophoresis, 648
extraction, 641
film pressure, 648
fractional distillation, 640
incineration of animal tissues, 609
Micromethods (*cont.*)
melting point, 647
microradiography, 645
microreaction chambers for electron microscope, 596
optical rotation, 648
physical properties determination, 642–48
purification, 640
qualitative analysis, 648–51
chromatography, 651
electrolytic methods, 649
microgram technique in, 649
quantitative analysis
balances for, 651
gas analysis, 654
gravimetric determinations, 651
organic elementary analysis, 653
titrimetric analysis, 652
volumetric analysis of gases, 654
refractive index determinations, 645
specific gravity determinations, 645
surface tension, 648
transition points, 647
Micronutrients, essential, 525
Microorganisms
assimilated CO_2 in, 536
biochemistry of, 551–86
chemosynthesis by, 563
growth factors of, 552, 557
metabolism of, 563
methylene blue reduction by, 530
nutrient requirements of, 552
oxidation rates of, 558
Microscope, electron, 587–614
adsorption studies, 601
auxiliary equipment for, 596
biological applications of, 587–614
histological studies with, 603
history of, 587
image formation by, 590
insect studies with, 595, 605, 606
penetration of beam of, 592
resolving power of, 589
stereoscopic observations by, 591
technique of observation, 593
technique of preparing specimens, 594
Microscope, polarizing, conversion to, 645
Milk, vitamin A output in, 366
Molds
antibacterial substances from, 563
carbon dioxide assimilation in, 537
metabolism of, 537
Molecules, electron microscope studies of, 607
Monasaccharides, 223
Muscle, vitamin-B complex and glycogen content of, 314
Muscle extract, fatty acids and, 241–44

Myoglobin, 432
dielectric properties of, 11
hemoglobin and, 11

N

Neozeaxanthol, absorption spectra of, 365
Neurohypophysis, hormones of, 289–91
Niacin, *see* Nicotinic acid
Nicotinamide
linkage with ribose, 13
thiochrome excretion and, 440
Nicotinic acid, 326–28
bacterial assays of, 556
bacterial oxidation of sugar and, 559
deficiency of, 327
excretion of, 14
protozoan growth and, 554
Nicotinuric acid, niacin and, 327
Nitrogen
choline deficiency and, 243
retention of, 189
Nitrogen fixation, 5
Nitrogen glycosides, 206–9
Nitrogen metabolism, 183, 252
Notatin, 563
Nucleic acid
arrangement of, 96
in vaccinia, 623
in viruses, 619
Nucleophosphatase, intestinal viruses and, 632
Nucleoproteins
nucleic acid arrangement in, 96
vaccinia, analysis of, 629
Nucleotides
lactic acid bacteria and, 555
virus content of, 630
Nutrition, 397–424
anemia, incidence of, 402
ascorbic acid requirement, 410–14
blood lipids and, 167
calcium requirement, 403–5
calories, daily requirement, 397
"Canadian Dietary Standard," 415
choline deficiency, 243
dark adaptation and, 406–7
"deficiency states," 420
energy requirement, 397–99
fatty acids deficiency, 163
hemoglobin values, 402
improved diet and pregnancy, 417
iron requirement, 397–403
magnesium requirement, 254
malnutrition, 414–20, 440
manganese deficiency, 263
niacin deficiency, 327
pantothenic acid, requirement of, 329
phosphorus, requirement of, 252
potassium requirement, 256, 257
Nutrition (*cont.*)
protein content of breads, 400
protein relation to caloric requirement, 399
protein requirement, 397–400
recommended allowances, table of, 398
riboflavin, requirement of, 165, 325, 410
sodium deficiency, 257
survey by Canadian Council, 414
survey of nutritional status in New York, 418
thiamin, requirement of, 322, 324, 408–10
vitamin content in diet, 376
vitamin A output in milk, and, 366
vitamin A requirement, 405–8
vitamin-B complex and, 320
requirements of, 310, 312, 317
vitamin D and, 371
vitamin E, content in diets, 376
vitamin K and, 387
"war edema" and, 399
zinc deficiency, 265
see also Nutrition, mineral
see also specific substances
Nutrition, mineral, 251–72, 493–528
ageing and, 266
aluminum sulfate, 251
calcium, 251–53, 403–5
chlorine, 257
cobalt, 262–63
copper, 259–62
fluorine, 264, 265
iodine, 35, 235, 624
iron, 258–59, 397–403, 513
magnesium, 253–55
manganese, 39, 263, 512, 513, 525
mercury, 458
mineral distribution in plants, 507–8
nitrates, 510
nitrogen, 243, 510
phosphates, 323, 568
phosphorus, 251–53
of plants, 493–528
potassium, 255–57
selenium-sulfur compounds, 128
sodium, 257
sulfate, 117, 514, 566
sulfur, 115–29, 191, 564
tomato fruit composition and nutrient medium, 519
zinc, 265, 523, 525
see also specific minerals

O

Octadecadienoic acid, ageing and, 161
Oleic acid, growth and, 555
Oligosaccharides
alkaline cleavage of, 214
preparations of, 223

Ornithine cycle, 194
Osazone, formation of, 207
Oxaloacetic acid
  anaerobic metabolism of, 541
  bacterial fermentation of glycerol and, 531
  reactivity of, 540
Oxidation-reductions, 1–26
  by microorganisms, 564
  phosphate turnover and, 1–5
  potential, of autolysis, 40
  potential measurements, 21
Oxyhemoglobin, 428–29
Oxytocin, isolation of, 289

P

Pancreas
  blood lipids and, 168
  carbohydrate metabolism and, 148
  liver fats and, 170
Pancreatic deficiency, diagnosis of, 33
Pantothenic acid, 16, 328–31
  analogues of, 561
  deficiencies of, 329
  determination of, 328
    bacterial, 556
  distribution of, 328
  metabolism and, 329, 440, 560
  physiological effects of, 329
  requirements of, 329
  riboflavin and, 326
  specificity of, 328
  toxicity of, 310
Pantoyltaurine, chemotherapy and, 316
Papain, 30–31
  activation of, 30
  digestion studies of, 28
  plastein formation and, 40
Parenchymatous cells, porphyrin and, 434
Pasteur enzyme, 7
Pasteur reaction, 19
Penicillin, 562
Pentahydroxybufostane, 48
Pepsin
  activities of, 34–36
  pH studies on, 27–28
  from shark pepsinogen, 35
Peptidase, activity of, 38–39
Peptide bonds, in insulin, 276
Peptonase, separation from dipeptidoses, 39
Periodic acid oxidation, 225
Permeability, effect on bactericides, 459
Pernicious anemia symptoms, avitaminosis B and, 441
Peroxidases, 7–9
  horseradish, I and II, 7
  inhibition of, 12
  protective action of, 12
Phanerosterols, 54–56
o-Phenylenediamine, condensation products of, 208
Phenylhydrazine, oxidation of sugar and, 208
Phleimycolic acid, pyrolysis of, 233
Phosphatase, virus adsorption of, 630
Phosphate esters, interactions between, 5
Phosphates
  inorganic
    thiamin and, 323
    microbial conversion to organic, 568
  microbial reduction of, 566
Phosphate turnover
  dehydrogenation of aldehyde phosphate, 2
  energy of conversion, 1
  metabolism and, 1
  oxidation and, 1–5
  oxidative fixation, 3
  see also Phosphorylation
Phosphatides, 235–36
  in blood plasma, 244
  fatty acids content of, 245
  see also Phospholipids *and* specific substances
Phospholipids, 167
  bacterial metabolism and, 458
  in blood, 244–45
    fractionation of, 244
  in brain autolysis, 241
  choline-deficiency and, 169
  in corpus luteum, 244
  decomposition of, 241
  synthesis of, 1, 243
Phosphopyridine nucleotide, bacterial assays of, 556
Phosphorus, 251–53
  absorption of, 251
    aluminum sulfate and, 251
    fat and, 163
  ageing and, 266
  in leaves, 508
  nitrogen metabolism and, 252
  permeation into brain cells, 1
  radioactive, assimilation of, 252
  requirements of, 252
  utilization of, 252
Phosphorylase, occurrence of
  in beans, 138
  in potatoes, 137
  in rabbit muscle, 138
Phosphorylation
  adrenal cortex and, 147
  phosphate transfer, 4
  propionic acid bacteria fermentations and, 531, 533
  pyruvic acid oxidation and, 4
  see also Phosphate turnover

Photooxidation, light intensity and, 474
Photosynthesis, 473–92
  bacterial, 485
  carbon dioxide in, 475
  cyanide in, 476
  fluorescence and, 480
    carbon dioxide uptake and, 483
    oxygen pressure and, 482
  heterotrophic carbon dioxide assimilation and, 545
  hydrogenase and, 5
  induction effects on, 481
  intermediate reactions in, 486
  light and
    absorption of, 475
    intensity of, 474
    intermittent, 479
    wave length of, 474
  potassium deficiency and, 476
  quantum efficiency of, 476–78
  steady-state conditions, 474–76
  temperature in, 475
  theories of, 488
Photosynthetic bacteria, spectral absorption curves of, 478
Phycocyanin, in photosynthesis, 475
Phytosterols, 54–57
Picrocrocin, alkaline reaction of, 215
Pigment excretion, dietary deficiency and, 440
Pigments, animal, 425–46
  metabolism of, 432
Pimelic acid, biotin synthesis and, 555
Pitressin, isolation of, 289
Pituitary
  anterior lobe of, hormones of, 278–89
  carbohydrate metabolism and, 145
Pituitary follicle-stimulating hormone, 285
Pituitary hormones, metabolism of, 288
Pituitary interstitial-cell-stimulating hormones, 284
Plants
  cellular respiration in, 513
  composition changes of, 507
  electrochemical properties of root surfaces, 503
  growth
    high saline and, 514
    pH and, 504
  hydration in, 507
  ion absorption in, 493–506
    depressing action of ions on, 496
    hydrogen ions and, 501
    mechanism of, 498
    pH and, 504
    by roots, 497, 498, 502
    univalent, 497
  iron utilization by, 513
Plants (*cont.*)
  micronutrient elements in, 523–26
    physiological aspects of, 523
  mineral distribution in, 507–8
  mineral nutrition of, 493–528
  nitrate absorption by, 510
  nitrogen in
    ammonium utilization by, 510
    metabolism of, 508–10
    saline solutions and, 517
  organic acid metabolism in, 498
  organic acids in, 498
  oxygen and, 519
    toxicity and, 520
  protein synthesis by, 508
  salt accumulation in, 493
    cell metabolism and, 494, 499
Plasma proteins
  abnormal, 104
  analysis of, 100
  plasmapheresis and, 186
Plasmalogen, synthesis of, 237
Plastein, formation of, 40
Pneumococcal infection, thiamin and, 323
Polypeptidases, occurrence of, 39
Polysaccharides
  anhydro derivatives of, 216
  metabolism of, 566
Porphyria, 437
Porphyrins, 433–37
  iron, 7–11
  melting points of, 647
  quantitative determinations of, 433
Porphyrinuria
  industrial toxicology and, 436
  parenchymatous damage to liver and, 434
Potassium
  accumulation in phosphate turnover, 1
  ageing and, 266
  deficiency of, 255
    photosynthesis and, 476
  periodic paralysis and, 256
  in plants
    hydration and, 507
    sodium and, 510
  requirements of, 256, 257
Potato-*X* virus, 601
Pregnanediol, excretion of, 296
Pregnenol-3-one-20, 68
  $\Delta^{5,9}$-, 58
Progesterone, 295
  activity of, 384
  synthesis of, 58
Prolactin, reactivity of, 125
Propionic acid bacteria
  acetate oxidation by, 557
  carbonate utilization by, 530
  carbon dioxide assimilation by, 530–34

Propylene glycol, 224
Protein metabolism, 183–204
Proteins, 81–114
  in blood clotting, 97
  in bread, 400
  carbohydrates in, 88
  cirrhosis and, 200
  cobalt-, 263
  conjugated, 95
  copper-, 12
  denaturization of, 87
    by bile acids, 52
  in egg white, 98
  hydrolysis of, 85
  iron-porphyrins, 7–11
  purity of, 93–95
  structure of, 81
Proteolytic enzymes, 27–44
  inactivation of, 17
  mode of action, 27–29
  in prostatic fluids, 33
  vaccina and, 631
Prothrombin, 98
  formation of, 385
Protoplasm, electron microscope studies of, 602, 607
Protoplasmic membrane, semipermeability of, 497
Protoporphyrin, 8
d-Psicose, isolation of, 223
Pterins, 441–42
Pyridine nucleotides, 13–14
Pyridine-3-sulfonic acid, chemotherapy and, 316
Pyridoxin, 331–33
  animals and, 333
  assay of, 332
    with yeast, 553
  deficiency of, 440
  distribution of, 332
  growth of bacteria and, 554, 557
  hemoglobin production and, 440
  plants and, 333
  in potassium deficiency, 256
  "pseudopyridoxin" and, 560
Pyruvate
  carbohydrate metabolism and, 142
  fermentation of, 569
  lactate and, 142
Pyruvic acid
  anaerobic metabolism of, 541
  breakdown of, 4
  carboxylation of
    in animal tissues, 544
    by bacteria, 534
    biological significance of, 546
  choline and, coupled oxidation of, 4
  decarboxylation of, 3
  from lactic acid, 142
  in pigeon liver, 539

Q

Quinoxaline
  3-(D-*arabo*-tetrahydroxybutyl)-, 208
  derivatives of, 208

R

Renal, *see* Kidney
Renin, 292
  hypertensin system, 292–93
  pepsin and, 36
Rennin, purification of, 37
Respiration
  polarographic studies on, 21
  tissue, technique, 21
  vitamin-B complex and, 314
Riboflavin, 325–26
  bacterial assays of, 556
  daily requirements of, 410
  distribution of, 325
  fluorometric determination of, 325
  light destruction of, 326
  in liver, digestion and, 441
  microbial synthesis of, 556
  microbiological determinations of, 325
  pharmacology of, 326
  physiological effects of, 326
  requirements of, 325
    fats and, 165
Ribonuclease
  molecular weight of, 111
  reversible inactivation of virus by, 632
  virus nucleic acid and, 623
Ribonucleic acid, isolation of, 623
Ribose, linkage with nicotinamide, 13

S

Saliva, human, antibacterial effect of, 563
Sarcoma, *see* Malignant tissue
Selenium-sulfur compounds, toxicity of, 128
Serine
  cystine from, 191
  determination of, 240
  in insulin, 276
Serine phosphatides
  in cephalin, 235
  occurrence of, 236
Serum albumin
  catalase inhibition by, 440
  digestion of, 35
Serum proteins
  abnormal, 102
  analysis of, 99
  arthritis and, 128
Sex hormones
  carbohydrate metabolism and, 147
  liver fats and, 170
  vitamin E synergy with, 383

Silk fibroin, structure of, 81
Sodium, ageing and, 266
  deficiency of, 257
  in plant cell sap, 511
  potassium deficiency and, 256
Sophorose, structure of, 223
Sphingomyelin
  distribution in cat tissues, 240
  preparation of, 237
Sphingosine, structure of, 237
Starch
  diastatic reactions on, 138
  microbial degradation of, 568
  periodate-oxidized, 224
  synthesis of, enzymatic, 137
Stercobilin, urobilin and, 437
Stereochemistry, 70
Stereoscopic micrograms, with electron microscope, 592
Steroid hormones, 293–96
  excretion of, 295
  metabolism of, 295
Steroids, 45–80
  chemical reactions of, 58–71
  conjugated, 51
  degradation of side chain of, 57
  photochemical reactions of, 68
Sterols
  absorption of, 159
  analysis of, 53
  conversion of, to provitamin D, 370
  of invertebrates, 57
Stigmastatrienol, 67
Stilbene, derivatives of, 294
Stilbestrol
  esters of, 294
  ketones of, 294
Styracitol, 224
Succinic acid
  bacterial fermentation end product, 530
  bacterial formation from hexoses, 534
  formation of, 543
Succinic dehydrogenase, destruction of, 18
Succinoxidase
  calcium stimulation of, 13
  tocopherols and, 17
Sugar cane, nutrition of, 522
Sugars, 223
  bacterial fermentations of
    by anaerobic bacteria, 571
    by the *Coli* bacteria group, 569
    glycolysis and, 570
  lactic acid conversion to, 568
  oxidative metabolism of, 568
Sulfa drugs
  p-aminobenzoic acid antagonism to, 336
  vitamin-B complex and, 313
Sulfanilamide
  p-aminobenzoic acid and, 315, 336
  bacteriostatic action of, 454, 561
  electrokinetic mobility of, 451
Sulfaquanidine, vitamin-B complex and, 313
Sulfates
  microbial reduction of, 566
  microdetermination of, 117
  in plants, toxicity of, 514
Sulfhemoglobin, formation of, 11
Sulfhydryl groups
  determination of, 120
  oxidation of, 120
Sulfonamides, 450–55, 561
  dissociation constants of, 452–53
  inhibition of, 453
  mechanism of action, 450
  metabolism and, 561
  peroxidase inhibition by, 12
Sulfur
  excretion of, amino acids and, 191
  metabolism of, 120–27
  oxidation of, by bacteria, 564
Sulfur compounds, 115–29
  analytical methods for, 116
  in biological materials, 119
  fat metabolism and, 125
  growth properties of, 124
  isolation of, 118
  methylation and, 125
  reactions of, 115
  synthesis of, 118
Synthetic drugs, 447–72

T

Taka-diastase, 325
Tartaric acid, preparation of, 225
Taurine, metabolism of, 123
Taurocholic acid, production of, 51
Tetany
  dehydrotachysterol$_2$ and, 370
  magnesium and, 254
  vitamins and, 337
Tetrahydronaphthalene derivatives as anesthetics, 464
3,6,12,24-Tetrahydroxysterocholanic acid, 49
Tetrathionate, microbial reduction of, 566
Tetrazolium, microbial conversion to formazan compounds, 566
Thiamin, 321–25
  algae growth and, 553
  assay of, 323, 553
  carbohydrate metabolism and, 149
  deficiency of, 143, 408–9
  food sources of, 324
  growth factor for protozoa, 554
  metabolism and, 321

Thiamin (*cont.*)
physiological effects of, 322
potassium deficiency and, 256
requirements of, in diet, 322, 324, 408–10
temperature and requirements of, 322
Thiamin enzymes, 14–15
Threonine, in insulin, 276
Thrombin, properties of, 98
Thrombocytes, electron microscope studies of, 603
Thromboplastic protein, chemistry of, 239
Thymus, choline deficiency and, 243
Thyroglobulin, 274
in blood stream, 273
Thyroid
blood lipids and, 168
vitamin-B complex requirements and, 317
Thyroid hormone, 273–75
Thyrotropic hormone, 282
destruction of, 288
metabolism of, 282
Thyroxine, 273, 274
formation of, 275
in thyroglobulin, 274
Tocopherol
antioxidant function of, 358
crystalline derivatives of, 373
properties of, 374
respiration of muscle strips and, 17
synergistic action of, 380, 441
vitamin A standard and, 361
see also Vitamin E
α-Tocopherol, structure of, 372
Tocoquinones, determination of, 375
Toxins, 105
-antitoxin reactions, 105
diphtheria, physical properties of, 105
separation of, 105
Tracheoles, tracheae differences from, 607
Transaminase, inhibition of, 18
Trigonelline, 14
niacin and, 327
Trihydroxybufosterocholenic acid, 48
3,12,17-Triketoetiocholane, 62
Trinitrotoluene poisoning, porphyrinuria and, 436
Tripeptidase, separation of, 39
Trypsin, 32–35
estimation of, 34
inhibition of, 32, 33
virus and, 632
Tryptophane
analogues of, 561
content in chymotrypsinogen, 34
microbial breakdown of, 565
Tuberculosis
infective agent studies of, 597
serum proteins and, 103
vitamin K and, 387
Tumor, melanotic, tyrosinase and, 12
cytochrome-*c* in, 10
Turacidine, composition of, 82
Tyrosinase, 12–13
Tyrosine, content in chymotrypsinogen, 34

U

Urea
formation of, 194–96
sulfonamide inhibition, and, 453
synthesis of, by heterotrophic organisms, 529
Urease, inhibition of, 18
Uric acid, microbial fermentation of, 573
Uricase, composition of, 12
Urine, myoglobin in, 432
Urobilin
stercobilin and, 437
structure of, 438
Urobilinogen, structure of, 438
Urocanic acid, toxicity of, 193
Uronic acid, diazomethane and, 210

V

Valine, glucose from, 194
Viruses, 615–38
adsorption on, 601
antigenic structure of, 628
bushy stunt, sedimentation constant of, 624
composition and structure, 619–23
concentration by adsorption, of, 619
conversion of, 619
dimensions of, 626
electron microscope studies on, 599, 626–27
enzymes and, 631–33
inactivation by ribonuclease, 632
influenza
inactivation of, 633
morphology of, 600
preparation of, 618
quantitative determination of, 619
size of, 625
isolation and purification of, 616
metabolism of, 630
molecular size and shape of, 624
potato-*X*, 601
precipitation by heparin, 618
rabbit papilloma, 624, 629, 633
sarcoma, purification of, 239
sedimentation constants, 617

Viruses (*cont.*)
tobacco mosaic, 509, 599, 601, 618, 619, 621
chemical derivatives of, 623
mutations of, 621
tomato bushy stunt, isolation of, 618
trypsin and, 632
vaccinia, 621, 625, 626
antigens, 629
x-ray studies of, 627
Vitamin A, 353–70
absorption of, 164
absorption and retention by hen, 366
anhydro or "cyclized," 363
balance of, in cattle, 367
bioassay and conversion factor of, 355
choline and, 311
concentration in liver, 406
crystalline, 353, 354
dark adaptation of children, 406
deficiency of, 407–8
estimation of, 364–67
extinction coefficient of, 353
international units of, validity of, 360
isoanhydro, 364
in liver, choline deficiency and, 441
optical absorption of, 365
physiological response to, 367–70
requirements in human diet, 405–8
sub-, 364
substances related to, 361
synergy with
ascorbic acid, 382
tocopherols, 441
vitamin E, 356, 382
from whale oil, 362
see also β-Carotene
Vitamin-B complex, 306–37
ascorbic acid in, 307
biological significance of, 308
in cancer tissue, 318–19
chemotherapy and, 315
classification of, 337
components of, 307
deficiency of, pernicious anemia symptoms and, 441
electrolyte balance and, 311
embryonic development and, 315
hormones and, 316
insects and, 309
interrelations of members of, 310
intestinal synthesis of, 312–14
metabolism and, 314
microbial synthesis of, 556
microbiological tests for, 309
nutritional requirements and, 310, 312, 320
occurrence of, 306
psychological functions and, 319
Vitamin-B complex (*cont.*)
subdivisions of, 307
temperature and requirements of, 312
unidentified vitamins in, 337
water balance and, 311
see also Nicotinic acid, Folic acid, *and* Inositol
Vitamin B_1, *see* Thiamin
Vitamin B_2, *see* Riboflavin
Vitamin B_3, 329
Vitamin B_6, *see* Pyridoxin
Vitamin C, *see* Ascorbic acid
Vitamin D, 370–72
antagonism of vitamin E with, 383
antirachitic effects of, 371
bioassay of, 371
calcification and, 251
dental caries and, 372
destruction of in feeds, 371
osteomalacia and, 252
pro-, sterol conversion to, 368, 370
see also Calciferol
Vitamin E, 372–84
antagonism with vitamin D, 383
bioassay of, 373
blood fatty acids and, 167
comparison standard for, 373
deficiency of, 376, 377
oxidation control and, 378
physicochemical assay of, 375
synergy with
sex hormones, 383
vitamin A, 356, 382
vitamin C, 383
synthesis of, 372
tissue metabolism and, 378
true content of diets, 376
see also Tocopherols
Vitamin F, *see* Linoleic acid
Vitamin H, *see* Biotin
Vitamin K, 384–87
analysis of, 385
commercial preparation of, 385
dihydroxystearic acid and, 165
jaundice and, 387
Vitamin P, 339
chemistry of, 16
hesperidin in, 340
Vitamins, 305–96
analogues of, 316, 331
carbohydrate metabolism and, 149
classification of, 306
fat soluble, 353–96
flagellate production of, 554
metabolism and, 560
synthesis of, 553, 556
unknown, 337
vitamin-like compounds, 338
water soluble, 305–52
see also specific substances

W

Water balance, vitamin-B complex and, 311
Wool
  disulfide linkage reactions of, 115, 120
  structure of, 82

X

Xanthopterin, synthesis and structure of, 441

Y

Yeasts
  growth factors for, 552
Yeasts (*cont.*)
  vitamin requirements of, 309
  vitamin synthesis by, 553

Z

Zeaxanthol, absorption spectra of, 365
Zinc
  deficiency of, 265
  in insulin, 276
  occurrence of, 265
  plant growth and, 525
  proteins and, 265
  seed formation and, 523
Zoosterols, 57–58
Zymohexase, inactivation of, 11